Resource Management Plan
for
Mount Olympus Preserve
San Diego County

June 2010

PARKS AND RECREATION
COUNTY OF SAN DIEGO
Where having fun is natural.

MOUNT OLYMPUS PRESERVE

RESOURCE MANAGEMENT PLAN

June 30, 2010

Approved by:

Renee Hilton, Assistant Director
County of San Diego
Department of Parks and Recreation

6/30/10
Date

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1.0 INTRODUCTION

Mount Olympus Preserve (Preserve) is an approximately 707.6-acre[1] open space preserve comprised of two non-contiguous parcels. The Preserve is located approximately six miles south of the City of Temecula just east of the Community of Rainbow in the northwestern portion of unincorporated San Diego County (County). The County Department of Parks and Recreation (DPR) began acquiring the properties that make up the Preserve beginning in the early 1990s with the most recent property added in 2008. The Preserve contains valuable native habitats, as well as areas that have been marginally impacted by human activities. Currently, the Preserve is not open to the public; however, some evidence of unauthorized use is present. The Preserve is included in the County of San Diego's North County Multiple Species Conservation Program (North County MSCP) preserve system.

1.1 Purpose of Resource Management Plan

This Resource Management Plan (RMP) has been prepared as a guidance document to manage and preserve the biological and cultural resources within the Preserve, and to provide Area-Specific Management Directives (ASMDs) pursuant to the requirements of the Draft North County MSCP Plan (North County MSCP Plan) and Draft Framework Resource Management Plan (Framework RMP) (County 2009b). More specifically, this RMP will:

a) guide the management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values;

b) serve as a guide for appropriate public uses of the property;

c) provide a descriptive inventory of the vegetation communities/habitats, plant and animal species, and the archaeological and/or historical resources that occur on this property;

d) establish the baseline conditions from which adaptive management will be determined and success will be measured;

e) and provide an overview of the operation and maintenance requirements to implement management goals.

Chapter 5 of this RMP includes ASMDs for Mount Olympus Preserve.

[1] The assessor's parcel data list the Preserve to be 749.65 acres; however, calculations generated from GIS data show the Preserve as 707.6. Therefore, this RMP references the property as 707.6 acres.

It is recognized that County-owned land is only a small portion of the MSCP preserve system. The County does ensure management of other lands that are dedicated as a conservation easement for discretionary project mitigation through requiring land developers to prepare Resource Management Plans. The County will spearhead a larger coordinated effort to ensure that other conserved lands in the area that make up the MSCP preserve are also being monitored and managed consistent with this RMP, and the overall goals of the MSCP Plan (City of San Diego 1998) and North County MSCP Plan once it is finalized.

1.1.1 MSCP Background

The MSCP is a comprehensive habitat conservation planning program and one of three subregional habitat planning efforts in San Diego County which contribute to preservation of regional biodiversity through coordination with other habitat conservation planning efforts throughout southern California. Agencies participating in the MSCP include the County, other local jurisdictions, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). Local jurisdictions and special districts implement their respective portions of the MSCP Plan (City of San Diego 1998) through Subarea plans, which describe specific implementing mechanisms for the MSCP.

The combination of the subregional MSCP Plan and Subarea plans serve as a Multiple Species Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA), the Natural Community Conservation Planning (NCCP) Program pursuant to the California NCCP Act of 1991 and the California Endangered Species Act (CESA). Mount Olympus Preserve is owned and operated by the County and is included within the North County MSCP Plan preserve system.

1.1.2 North County MSCP Plan

The County is preparing the North County MSCP Plan as a habitat conservation planning effort which will expand the County's MSCP into the northwestern unincorporated areas of the County. This North County MSCP Plan will help conserve habitat that benefits numerous species, including the 63 covered species. The North County MSCP Plan will also enhance the region's quality of life by providing the residents of San Diego County with passive recreational and educational opportunities as well as a functioning natural environment in which to live. The North County MSCP Plan area encompasses approximately 489 square miles in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center.

The North County MSCP Plan goal is to preserve 106,780 acres of natural lands in a network of preserves. The North County MSCP preserve system will be assembled by a variety of means, beginning with the conservation and management of existing public lands.

1.1.3 Draft Framework Resource Management Plan and Area-Specific Management Directives

According to Section 6.3.1 of the MSCP Plan the County is required to prepare a Framework RMP for the portion of the North County MSCP preserve within the North County MSCP Plan's boundaries. The Framework RMP provides general direction for all preserve management and biological monitoring within the preserve system.

The Framework RMP also incorporates a requirement for the subsequent preparation and implementation of ASMDs to address management and monitoring issues at the site-specific level. ASMDs will be developed in accordance with the Framework RMP using the information gained during the biological and cultural resources baseline surveys. Chapter 5 of this RMP includes ASMDs for Mount Olympus Preserve.

1.2 Implementation

1.2.1 Management Approach

A key concept of the MSCP is the use of "Adaptive Management Techniques" directed at the conservation and recovery of individual species. This term refers to modifying management actions when monitoring of the resources indicates that changes are needed. It is particularly useful where there is uncertainty regarding the efficacy of certain management measures and/or the needs of target species. Adaptive management and an associated monitoring program are designed to inform land managers of the status and trends of covered species, natural communities, and landscapes in a manner that provides data to allow informed management actions and decisions.

It is anticipated that the recommended management actions provided in this RMP will be dynamic in nature. Applying adaptive management, the effectiveness and appropriateness of recommended management actions would be determined through review of management goal and objective achievement so that changes can be made to management directives and implementation measures as needed. Adaptive management techniques depend upon the specific issues impacting the resources. Therefore, the techniques herein may be subject to change or revisions when applied. Additionally, the monitoring protocols/requirements for MSCP covered species and habitats are being revisited by participants of the MSCP and are subject to change based on adoption of updated protocols. It is anticipated that this RMP will be revised once every five years, as needed. The RMP may be revised on a shorter time scale if there is a change in circumstance, for example, acquisition of additional Preserve land.

1.2.2 Responsible Parties/Designation of Land Manager

The County is responsible for management, biological monitoring, and meeting the conditions of MSCP coverage on County-owned lands conserved as part of the MSCP preserve system. The Preserve is fully owned and operated by the County

Department of Parks and Recreation (DPR) and the DPR District Park Manager assigned to the Preserve is the land manager. The DPR District Park Manager and Resource Management Division staff will be responsible for the implementation and enforcement of the RMP.

The Preserve is located in the management district of one supervising park ranger, one park ranger, and one seasonal employee. Park rangers patrol the Preserve every other day. It is expected that many of the implementation measures, especially the maintenance tasks, will be carried out by the rangers who are most familiar with the site and currently patrol the Preserve.

1.2.3 Regulatory Context

The County's park rangers manage County parks/preserves and enforce Preserve rules and regulations pursuant to San Diego County Code of Regulatory Ordinances Title 4, Division 1, Chapter 1 County Parks and Recreation. In addition, per County Code of Regulatory Ordinance Sec 41.111, 41.112, 41.113, all wildlife, plant, historical artifacts, and geologic features are protected and are not to be damaged or removed. Any person who violates any provision of Sections 41.111, 41.112, 41.113 is guilty of a misdemeanor as provided in Sections 11.116, 11.117, and 11.118 of this Code, punishable by fines up to $2,500 a day for each day the person violates these sections. The park rangers will contact law enforcement who will cite the offending individual. In addition, if an individual does not comply with signs within a facility and ignores park ranger instructions, the individual could potentially be charged with a misdemeanor by law enforcement.

1.2.4 Limitations and Constraints

Implementation and the timing of many of the management directives will be based on funding in any fiscal year and will be determined through the DPR Operations Division who will prioritize park/preserve needs in their work plan for the fiscal year based on the priority of the directives in the RMP for each park/preserve.

2.0 PROPERTY DESCRIPTION

2.1 Property Location

Mount Olympus Preserve is generally located north of State Route (SR) 76, south of SR-79, east of Interstate (I) 15 and west of the Cleveland National Forest in unincorporated San Diego County (Figure 1). The Preserve is specifically located north of Arouba Road, south of Rainbow Heights Road, east of Rainbow Crest Road, and west of Pala Temecula Road (Figure 2). The Preserve is within the Pechanga, California U.S. Geological Survey (USGS) quadrangle, Township 9 South, Range 2 West, Sections 4, 8, 9 and 10 (Figure 3). The Assessor's Parcel Numbers (APNs) for the Preserve are: 109-080-12; 109-080-22; 109-081-07; 109-081-08; 109-280-03; 109-280-42; 109-300-08; 109-371-03; and 109-412-06.

2.2 Geographical Setting

The Preserve is located on and surrounding Mount Olympus in the northwestern portion of unincorporated San Diego County. The Preserve ranges in elevation from 790 to 2,224 feet above sea level (AMSL). The lowest elevation within the Preserve occurs in the southeastern corner. The highest elevation is at the top of Mount Olympus, which is located in the center of the Preserve. The Preserve is approximately 20 miles northeast of the Pacific Ocean. No bodies of water or significant drainage features occur on the Preserve.

2.2.1 Site Access

Access for ranger patrol purposes is from the eastern, western, and southern boundaries. The eastern access point is from Pala Temecula Road, and requires unlocking a pipe gate to enter the Preserve. Access from the west is from a road that provides access to a transmission line owned and operated by San Diego Gas & Electric (SDG&E). Southern access is from Farra Street, which is reachable via Arouba Road off Pala Temecula Road.

2.2.2 MSCP Context

The majority of the Preserve is designated as Baseline Preserve except for a small block in the south central portion which is designated as Pre-Approved Mitigation Area (PAMA) (Figure 4). The Preserve is located within the Mount Olympus Core Area. The Preserve is surrounded by vacant undeveloped land and scattered rural residences designated as PAMA. The adjacent U.S. Department of the Interior Bureau of Land Management (BLM) land to the north is designated as Baseline Preserve.

Source: Census 2000 Data, The CaSIL, MBA GIS 2009.

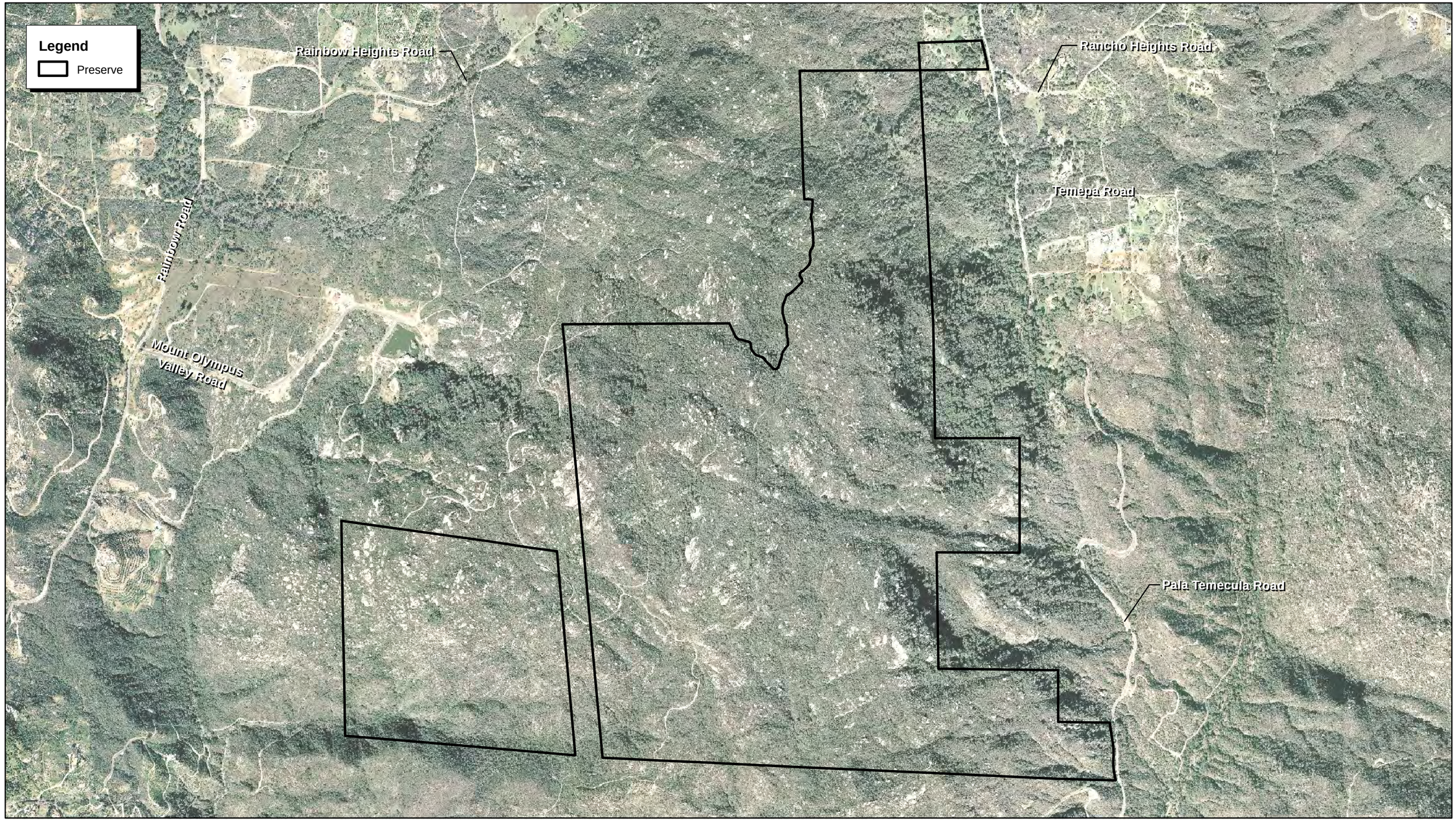
NORTH

5 2.5 0 5

Miles

Michael Brandman Associates

Figure 1
Regional Location Map



Source: San Diego North Aerial, 2005.

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Michael Brandman Associates

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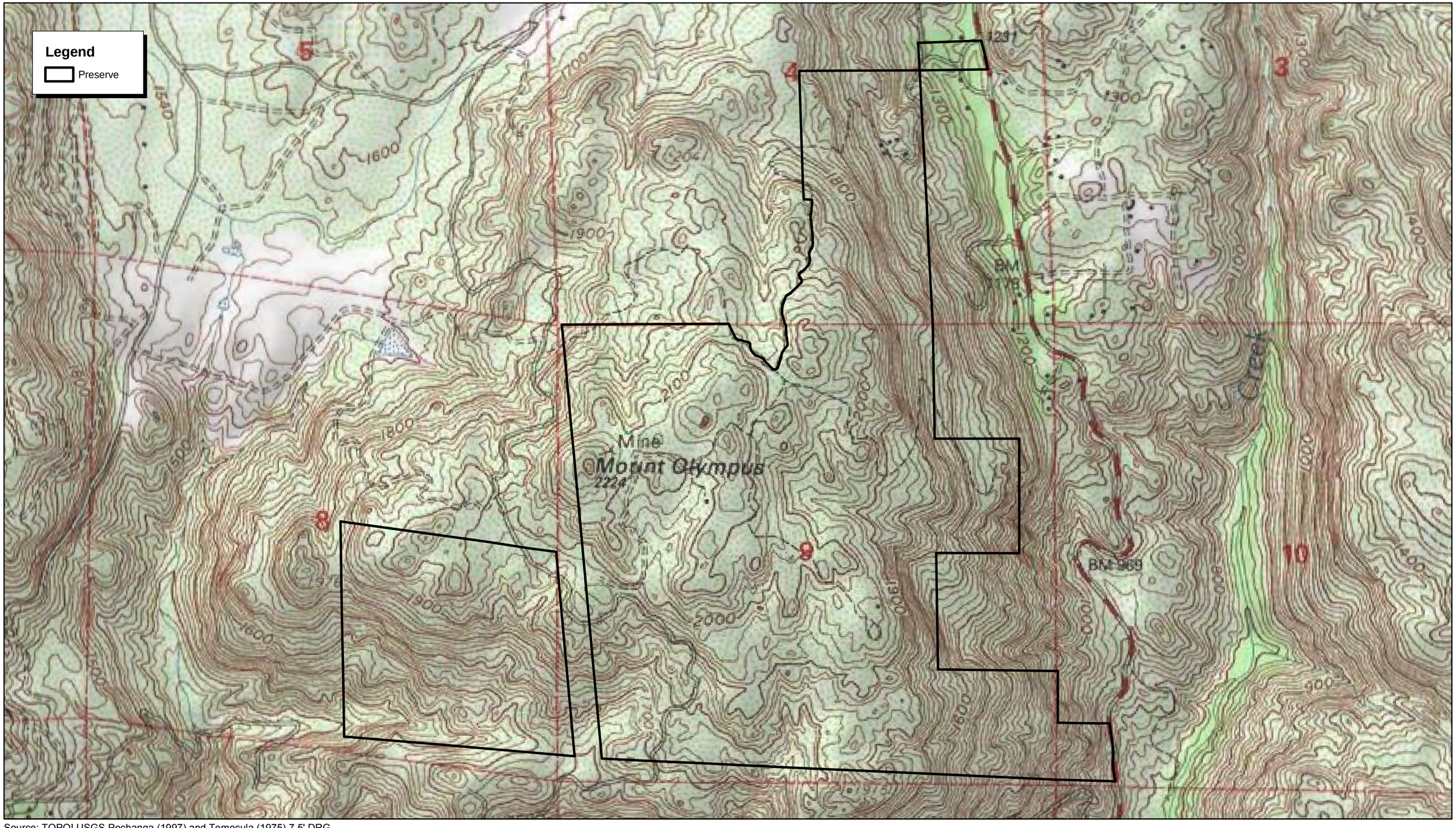
Figure 2
Local Vicinity Map
Aerial Base

COUNTY OF SAN DIEGO PARKS • MOUNT OLYMPUS PRESERVE



Source: TOPO! USGS Pechanga (1997) and Temecula (1975) 7.5' DRG.

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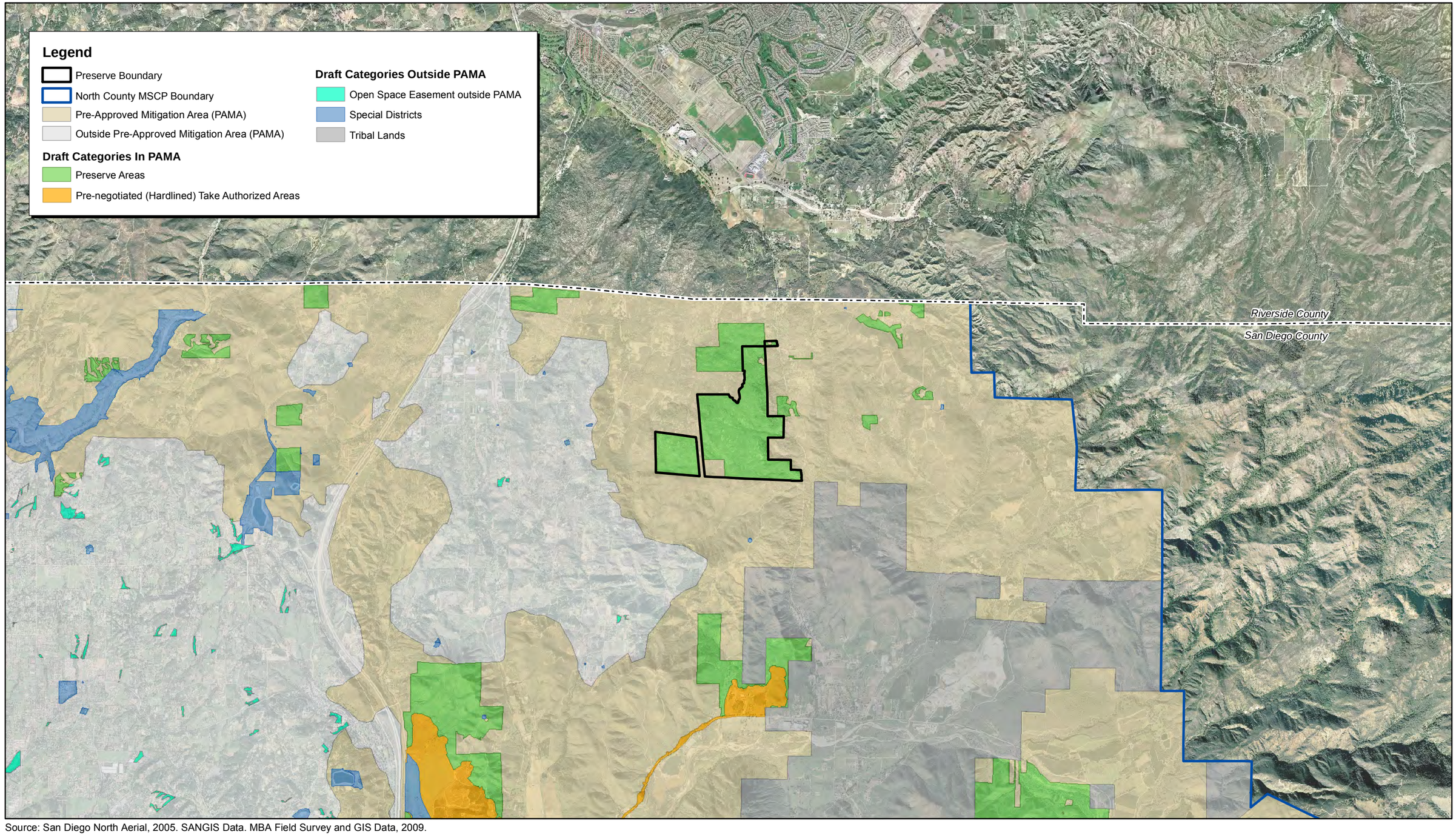
Michael Brandman Associates

Figure 3
Local Vicinity Map
Topographic Base



Source: San Diego North Aerial, 2005. SANGIS Data. MBA Field Survey and GIS Data, 2009.

1 0.5 0 1 Miles

Michael Baker International

Figure 4
North County MSCP Designations and Conserved Lands

2.3 Physical and Climatic Conditions

2.3.1 Geology and Soils

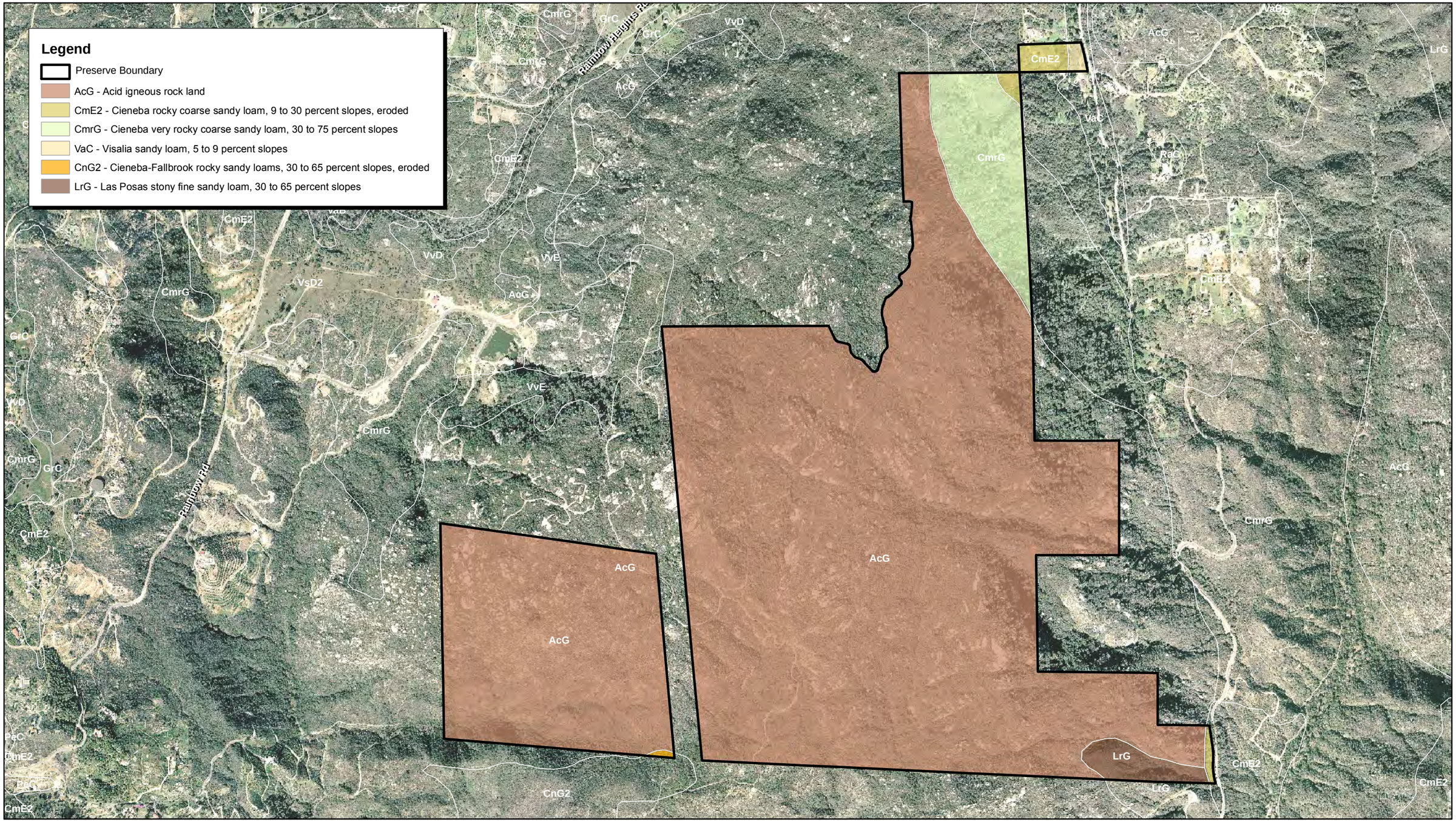
The Preserve lies on a mesa that extends south from tectonically disturbed hills and broad ridges aligned transversely and located between the Pauba Valley and the San Luis Rey River. Except for the northern end of the mesa, all sides of the Preserve area are separated from adjacent valleys and creek beds by extremely steep hillsides of between 100 and 200 feet in grade. A series of minor faults forming a checkerboard pattern have contributed to the topography of the property, a fact that can be seen on all of the aerials placed in this report. Intermittent stream channels, broad and shallow on the mesa top, are extremely steep and difficult to navigate on the sides of the mesa. This fact signifies the youthfulness of the hills in the region. Faulting has contributed to an influx of mineral bearing ores in many of the hills in this region, especially east of Pala Creek on Tourmaline Queen Mountain.

The Preserve appears to exhibit surface exposures of pegmatite that is broken by recent faulting, but does not include extensive quartzite inclusions or veins. No mines or adits could be found on the property although the USGS Pechanga, California map indicates that a mine adit is present. It is highly likely that the property was scouted for mining potential by locals because many mines exhibiting gemstones can be found a few miles away on Tourmaline Queen Mountain. No gem-bearing dikes seem to exist in the Preserve. There is no evidence of any mining claims filed on the property.

The Preserve contains six soil-mapping units belonging to five soil series (USDA 1973). The majority of the Preserve consists of acid igneous rockland with inclusions of Cieneba rocky and very rocky coarse sandy loam in the north, and Las Posas stony fine sandy loam in the southeast (Figure 5). Two small inclusions of Visalia sandy loam and Cieneba-Fallbrook rocky sandy loams are located on the southern boundary of the Preserve. A brief description of each soil series and associated soil mapping unit is provided below.

Acid Igneous Rock Land

The vast majority of the Preserve is comprised of acid igneous rock land. This soil series consists of rough broken terrain with topography that ranges from low hills to very steep mountains. Large boulders and rock outcrops cover 50 to 90 percent of the total area, which allows for very rapid rainfall runoff. The soil material consists of decomposed granite or basic igneous rock, which transitions to loam to loamy coarse sand and is very shallow throughout the Preserve. In a few places, there are pockets of deep soil between the rocks that provide suitable habitat for larger trees. On the Preserve, the acid igneous rock and soil series predominantly supports southern mixed chaparral.



Source: San Diego North Aerial, 2005. San Diego County USDA Soils Data.

NORTH

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Michael Brandman Associates

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Figure 5
Soils Map

COUNTY OF SAN DIEGO PARKS • MOUNT OLYMPUS PRESERVE

Cieneba Series

The Preserve contains two soil-mapping units of the Cieneba soil series: Cieneba rocky coarse sandy loam and Cieneba very rocky coarse sandy loam. The Cieneba series consists of very shallow and shallow, somewhat excessively drained soils that formed from material weathered from granitic rock. Cieneba soils are formed from material weathered from granite and other rocks of similar texture and composition. The soils are generally found at elevations of 500 to 4,000 feet AMSL and have slopes of 9 to 85 percent. On the Preserve, the Cieneba soils supports southern mixed chaparral, coast live oak woodland, non-native grassland, and non-native vegetation. These soils occur in the northeastern corner of the Preserve between the acid igneous rock and the Visalia sandy loam, and along a small portion of the southeastern boundary.

Las Posas Series

The Las Posas series consists of deep, well-drained soils that formed in material weathered from basic igneous rocks. Las Posas soils are typically found on mountainous uplands at elevations of 200 to 3,000 feet AMSL and have slopes of 5 to 50 percent. The soils are formed in material weathered from basic igneous rocks. In general, some areas have up to 10 percent rock outcrop. On the Preserve, the Las Posas soil is located in the southeastern corner of the Preserve and supports a dense stand of southern mixed chaparral.

Visalia Series

The Visalia series consists of moderately well-drained, very deep sandy loams derived from granitic alluvium. These soils are typically found on alluvial fans and flood plains at elevations of 400 to 2,000 feet AMSL and have slopes of 0 to 15 percent. Vegetation associated with this soil type is chiefly annual grasses, chamise, California buckwheat, California live oak, and scrub oak. On the Preserve, the Visalia soil is located in the northeastern corner of the Preserve and supports coast live oak woodland and non-native grasslands.

Cieneba-Fallbrook Series

Cieneba-Fallbrook rocky sandy loam soil is a combination of the Cieneba and Fallbrook soil series. Both soil series originate from granitic rocks and occur on uplands with moderate slopes. Cieneba soils consist of shallow to very shallow soils that have low to medium runoff with moderate permeability. Fallbrook soils consist of deep soils that have medium to very rapid runoff with moderately slow permeability. Vegetation that occurs on Cieneba soils includes chaparral, chamise, gray pine (*Pinus sabiana*), oak trees (*Quercus* sp.), annual grasses, and forbs. Vegetation that occurs on Fallbrook soils includes annual grasses, forbs, chaparral, chamise, buckwheat, and other shrubs. On the Preserve, the Cieneba-Fallbrook

soils support southern mixed chaparral. This soil is limited to the southernmost portion of the Preserve adjacent to the SDG&E property that bisects the Preserve.

2.3.2 Climate

San Diego County has a Mediterranean to semi-arid climate, which is characterized by warm, dry summers and mild wet winters. Although temperatures can drop below freezing, it is typically for a short time and it is not likely that this area sustains any significant snowstorms. The growing season is generally considered to be year round.

Regional temperature data recorded at the Temecula (KCATEMEC5) weather station (coordinates: +33.302763, -117.01255) for 2006 through 2009 average between a low of 25 degrees Fahrenheit (°F) and a high of 85°F for the month of January. The month of June ranges from a low of 48°F to a high of 101°F. The average precipitation ranges from 0.15 and 5.90 inches in January to a range of 0.00 to 0.20 inches in June.

Generally, the prevailing wind patterns flow in a southwest to westerly pattern under the typical Pacific high-pressure system. However, in this southern California location, Santa Ana winds generally result from a large high-pressure cell over the Great Basin and a low-pressure trough located off the southern California coast.

Winds generated from this combination of events create the Santa Ana winds that are very hot and dry. Wind velocities can reach speeds greater than 60 miles per hour (MPH) (Sugihara et al. 2006). These winds are often erratic in direction and velocity, but generally flow in a north, northeasterly, and/or eastern direction.

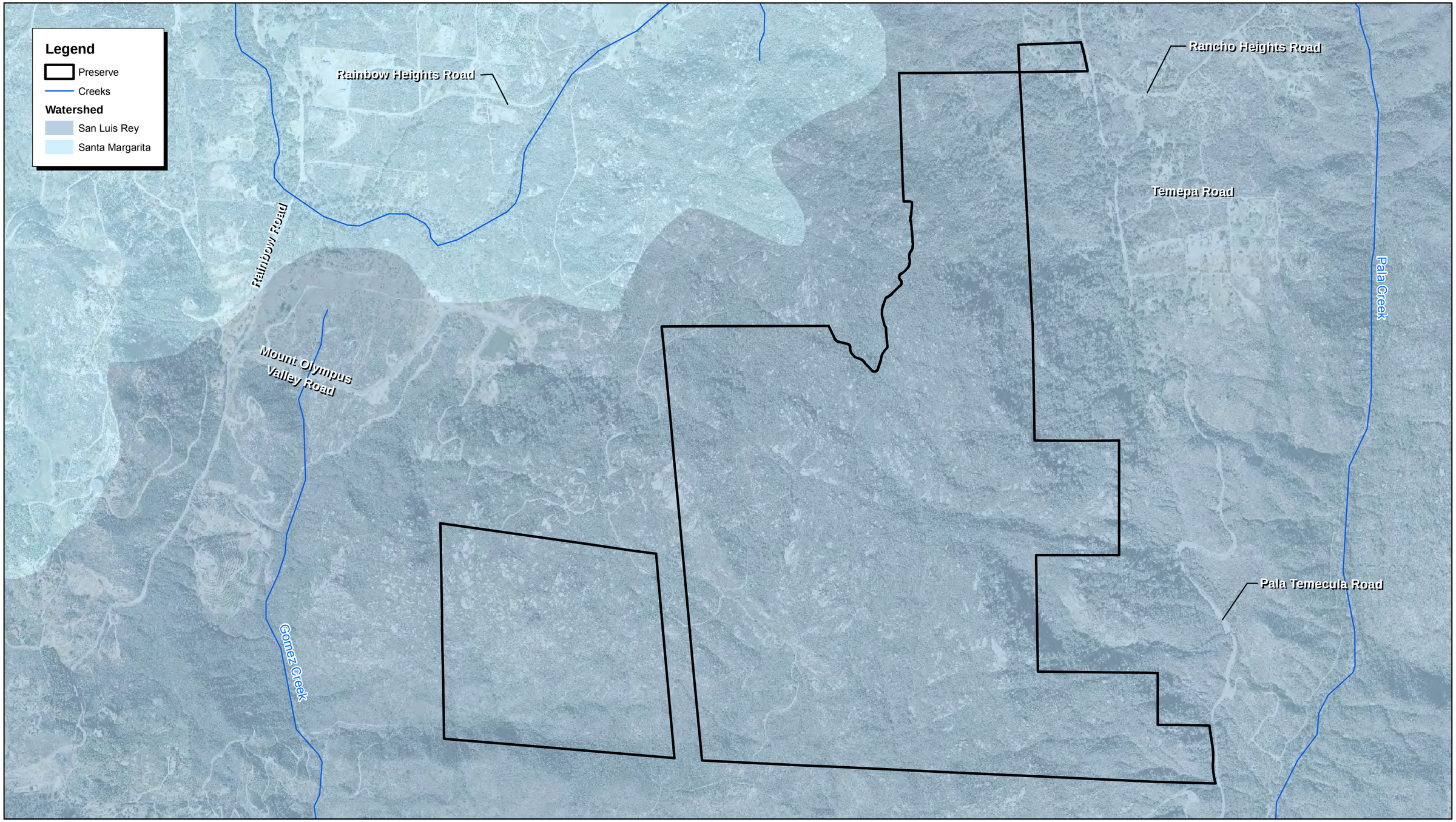
The fire season for the region generally runs June through October. This period can be extended as Santa Ana wind conditions occur later in the season. While the typical wind conditions usually occur during September and October, November and December can be additional months for such winds, extending the fire season to much later in the year.

2.3.3 Hydrology

The Preserve is located within the San Luis Rey River Watershed approximately 20 miles northeast of the Pacific Ocean (Figure 6). There are no bodies of water or significant drainage features that occur within the boundaries of the Preserve; however, Pala Creek is a north-south drainage, which occurs east of the Preserve. Gomez Creek is a southeast running drainage that occurs southwest of the Preserve. Sheet flows from the Preserve flow into these drainage features.

2.3.4 Fire History

The first recorded fire within the Preserve occurred in 1919 and burned a total of 7.8 acres within the southeastern corner. The Preserve completely burned in a 1942



Source: San Diego North Aerial, 2005. SANDAG and SANGIS Data. MBA Field Survey and GIS Data, 2009.

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Feet

Michael Baker Jr. Inc.
Michael Bachman Associates

Figure 6
Hydrology Map

fire, but has not significantly burned since then. Two small fires, approximately one-acre in size, were recorded within the Preserve in 2004 (Hemme Fire) and 2005 (Lilac Fire) and were caused by arson (SANGIS 2009) (Figure 7). The Preserve is located within a fuel management priority area (San Luis Rey West) as identified by the Forest Area Safety Task Force (County of San Diego 2009c).

The Preserve is located within a State Responsibility Area and CAL FIRE is the responsible agency for fire suppression within the Preserve. In addition, the western portion of the Preserve is also located within the North County Fire Protection District.

2.4 Land Use

2.4.1 On-Site Land Use

The Preserve is an approximately 707.6-acre open space preserve. It is currently not open to the public; however, there is evidence of illegal, motorized use, as well as evidence of hikers as reported by rangers who patrol this area. There is an existing vehicle gate north of the Preserve and two gates within the northeast corner of the Preserve at the eastern access point along Pala Temecula Road.

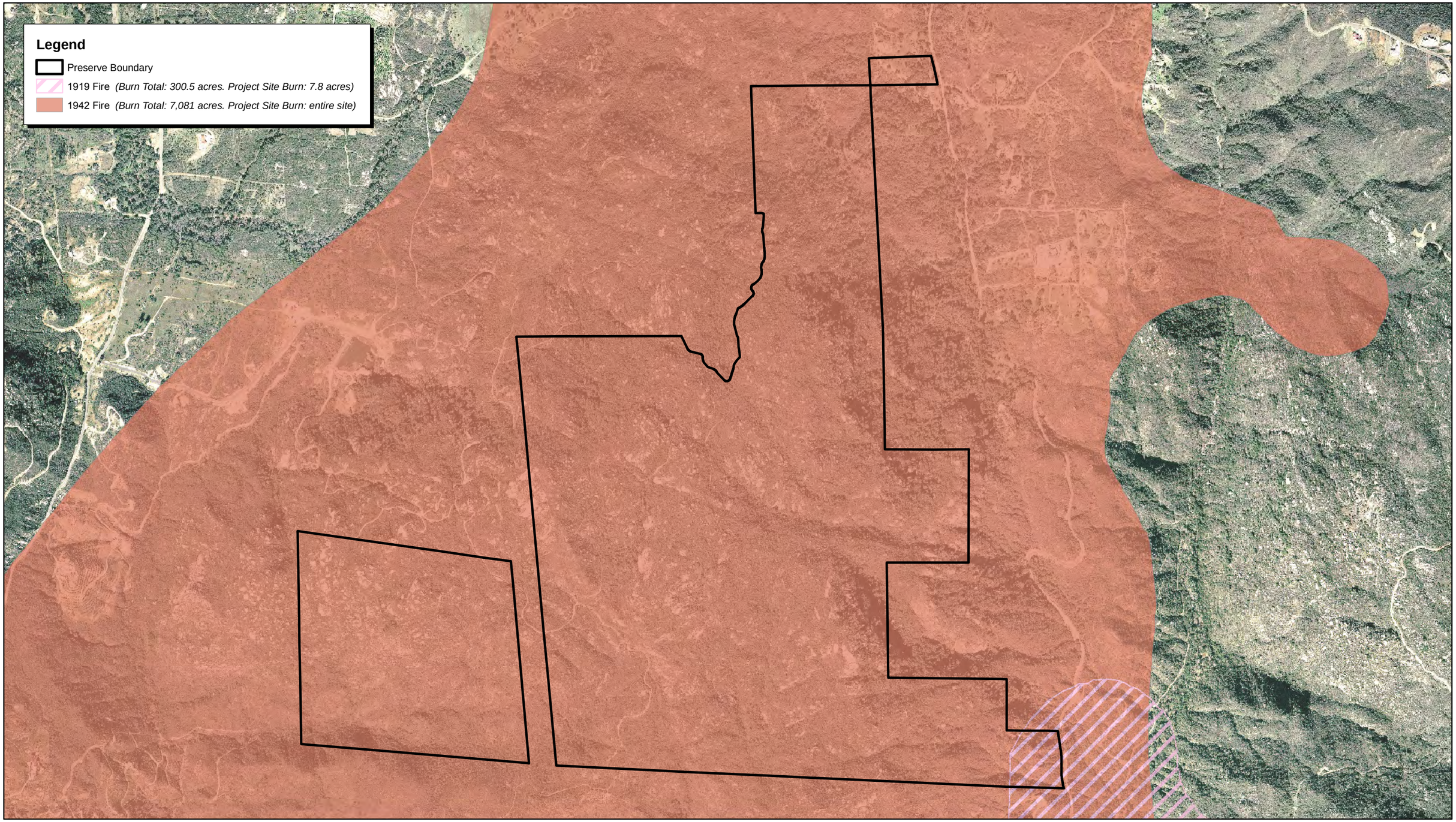
2.4.2 Adjacent Properties

The Preserve is bordered by rural residences along the eastern boundary and vacant undeveloped land along the western and southern boundaries. The northern boundary abuts land owned by BLM, which is under a special use permit with the California Department of Corrections and Rehabilitation for the Rainbow (Women's) Correctional Facility. The eastern boundary of the Preserve follows Pala Temecula Road, a heavily used County roadway that provides a connecting route between the Pechanga Resort and Casino, and Pala Casino Resort and Spa. The westernmost parcel of the Preserve is separated from the central portion of the Preserve by property owned by SDG&E, which contains a transmission line and associated access road.

2.4.3 Easements or Rights

Several right-of-ways and easements exist within the Preserve boundaries. The County maintains a 100-foot right-of-way along Pala Temecula Road for provision of road improvements and other underground and overhead improvements.

A SDG&E easement crosses the northeastern portion of the Preserve through APN 109-280-42. The 12-foot wide right-of-way roughly parallels Pala Temecula Road. SDG&E conducts operation and maintenance activities for their facilities in accordance with the SDG&E Subregional Natural Community Conservation Plan (NCCP) (SDG&E 1995). The SDG&E NCCP was approved by the Wildlife Agencies and is consistent with this RMP.



Source: San Diego North 2005 Aerial. CALfire FRAP data. MBA GIS data, 2009.

1,000 500 0 1,000
Feet

Michael Baker Jr. Inc.

Figure 7
Fire History Map

In addition, the Department of the Navy, Naval Facilities Engineering Command Southwest holds a restrictive easement over a parcel (APN 109-080-12) in the southern portion of the Preserve. This easement restricts development or use of the property (passive recreation and fire management are permitted) and allows the Department of the Navy to cut down, top or trim any naturally occurring trees, plants, and like obstructions extending more than 120 feet above ground level. It also requires that the Department of the Navy be notified of any planned new use or construction on the property.

2.5 Trails

There are a number of disturbed areas throughout the Preserve that show evidence of previous use and clearing, potentially for the purpose of creating trails. These disturbed trails traverse the entire Preserve (Figure 8). Vegetation and canopy cover on the disturbed trails range from sparse and very open, to dense with a closed canopy of tall chaparral species. The Preserve also contains two main access roads located near the northeast and southwest corners of the Preserve. The dirt access roads are frequently used and easily accessible, and have little to no vegetation within the access road footprint and/or have been recently cleared by DPR or SDG&E. Generally, the access roads are compacted and wide enough to allow vehicular access.

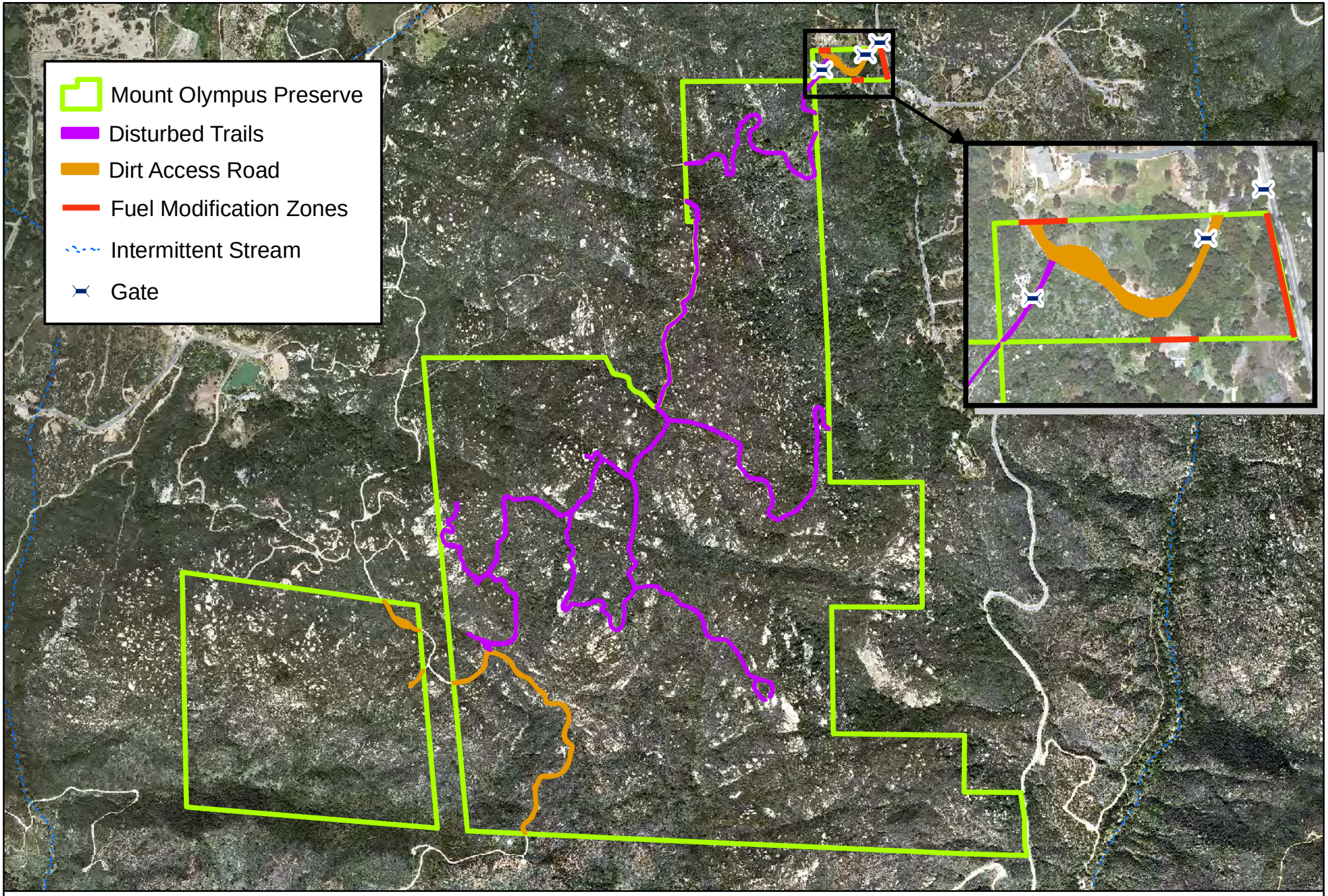


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Figure 8
Land Use Map
Mount Olympus

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3.0 BIOLOGICAL RESOURCES

Baseline biological surveys were conducted on the Preserve in the late spring and summer of 2009 (April through September) by Michael Brandman Associates (MBA). The results of these surveys can be found in the biological resources report entitled, *Baseline Biodiversity Report for the Mount Olympus Preserve in Unincorporated San Diego County, California*, dated April 12, 2010, and attached as Appendix A. The survey results were used in the preparation of this RMP.

The 2009 surveys documented six land cover types within the Preserve. Plant surveys detected a total of 133 plant species including three sensitive species, two of which are covered under the North County MSCP. Wildlife surveys, along with incidental observations, documented 148 wildlife species including 16 butterfly species, 51 other invertebrate species, one amphibian species, 11 reptile species, 42 bird species, and 27 mammal species. A total of 13 sensitive wildlife species were detected, four of which are covered under the North County MSCP.

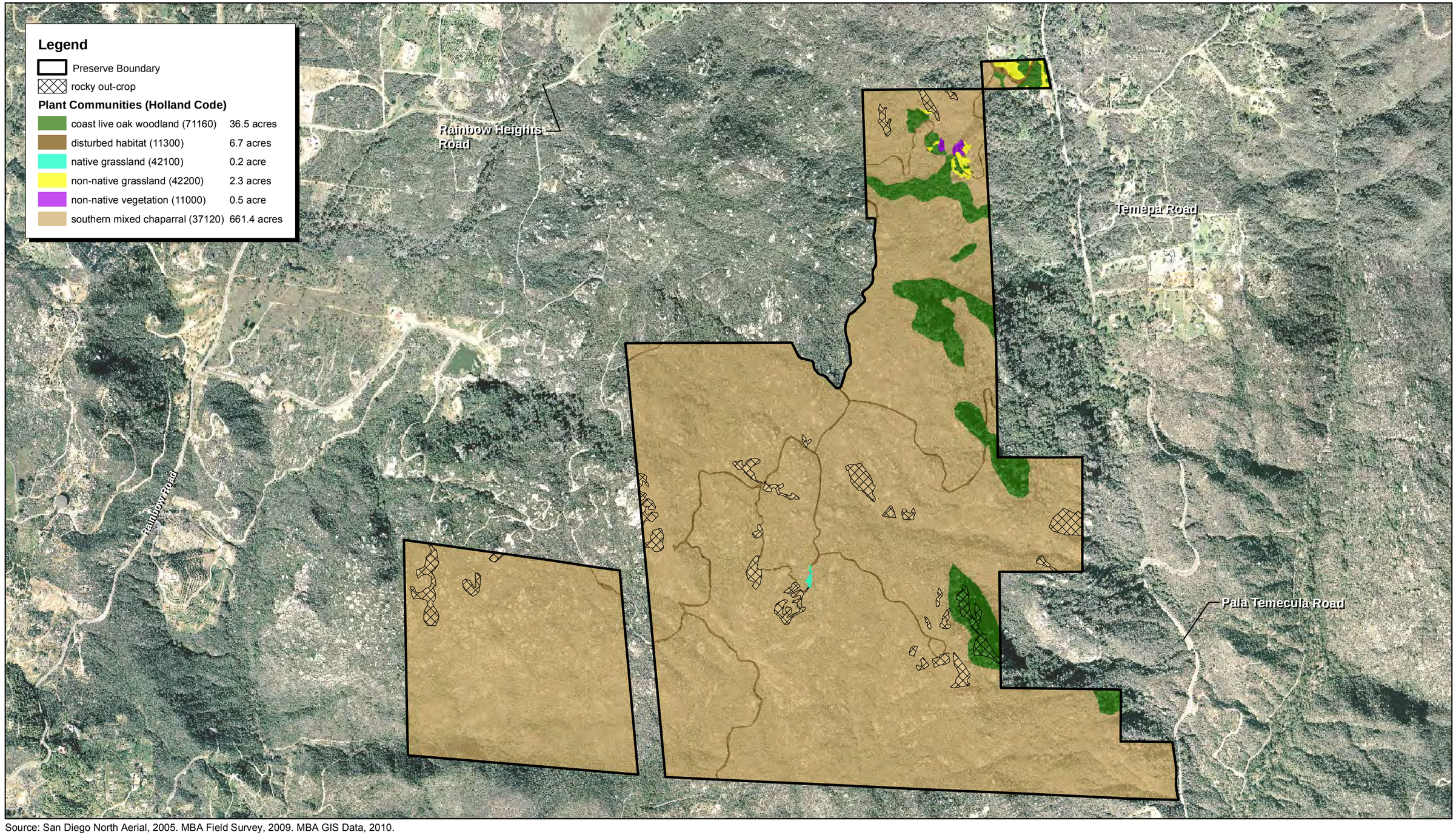
3.1 Vegetation Communities/Habitat

Vegetation communities and land cover types present within the Preserve consist of southern mixed chaparral, coast live oak woodland, native grassland, non-native grassland, non-native vegetation, and disturbed habitat (Figure 9, Table 1). A description of the vegetation communities and the dominant species detected are found below.

Table 1. Vegetation Communities/Habitat Types within the Preserve

Vegetation Community/Habitat Type (Holland Code)	Approximate Area (acres)
Southern Mixed Chaparral (37120)	661.4
Coast Live Oak Woodland (71160)	36.5
Native Grassland (42100)	0.2
Non-Native Grassland (42200)	2.3
Non-Native Vegetation (11000)	0.5
Disturbed Habitat (11300)	6.7
Total	**707.6**

The Preserve is dominated by old-growth chaparral habitat with smaller inclusions of coast live oak woodland. The relatively homogenous vegetation communities are strongly associated with similar soil structure and the lack of significant disturbance, such as fire, within the Preserve for approximately 65 years.



Source: San Diego North Aerial, 2005. MBA Field Survey, 2009. MBA GIS Data, 2010.

NORTH

1,000 500 0 1,000 Feet

Michael Brandman Associates

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Figure 9
Vegetation Communities Map

COUNTY OF SAN DIEGO PARKS • MOUNT OLYMPUS PRESERVE

Southern Mixed Chaparral (Holland Code 37120)

Southern mixed chaparral is a densely vegetated, tall-growing, shrub community that occurs on coastal and inland hillsides in Southern California. The community occurs in xeric climates and the vegetation typically reaches heights between five to nine feet high. Southern mixed chaparral is considered a Tier III Habitat under the North County MSCP (County of San Diego 2009b).

The Preserve is predominantly comprised of southern mixed chaparral totaling approximately 661.4 acres. An absence of recent burn events or other disturbances on the Preserve has allowed the vegetation to grow very dense and tall. The vegetation across the Preserve varies based on the elevation and microclimate within the varying topography. In the foothills, the vegetation is mainly a sparse cover of laurel sumac (*Malosma laurina*), sugar bush (*Rhus ovata*), chamise (*Adenostoma fasciculatum*), and ceanothus (*Ceanothus* sp.). In the steeper portion of the Preserve, chamise, manzanita (*Arctostaphylos* sp.), red shank (*Adenostoma sparsifolium*), ceanothus, and scrub oak (*Quercus berberidifolia*) are the common species.

The southern mixed chaparral observed within the Preserve also contains areas with rocky outcrops. These rocky outcrops contain limited vegetative cover because plant species are restricted to growth in shallow, interstitial areas where soil has accumulated. Plant species observed occurring in the rocky outcrop areas on the Preserve include western plantain (*Plantago erecta*), ladies'-fingers (*Dudleya edulis*), and lance-leaved dudleya (*Dudleya lanceolata*).

Coast Live Oak Woodland (Holland Code 71160)

Coast live oak woodland typically consists of moderate to densely vegetated woodlands dominated by coast live oak trees (*Quercus agrifolia*). These evergreen trees reach 30 to 80 feet in height and usually occur on north-facing slopes or south-facing slopes within shaded ravines. Coast live oak woodland is considered a Tier I Habitat under the North County MSCP (County of San Diego 2009b) and is protected under the California Oak Woodland Conservation Act.

The Preserve contains several stands of coast live oak woodland along the eastern facing slopes and ravines, totaling 36.5 acres. The tree canopy is dominated by coast live oak trees, which subsequently provides a deep layer of leaf litter; however, several shrub and herbaceous plant species persist in the lower canopy. The understory species observed include toyon (*Heteromeles arbutifolia*), creeping snowberry (*Symphoricarpos mollis*), poison oak (*Toxicodendron diversilobum*), and deergrass (*Muhlenbergia rigens*).

Rocky outcrops occur within the coast live oak woodland community in the southern portion of the Preserve. The rocky outcrop in this community is generally devoid of vegetation, but occurs within the understory of coast live oak trees. As such,

vegetation is comprised of western plantain and scattered brome grass (*Bromus* sp.), with an understory of bare ground and leaf litter.

Coast live oak woodland on the Preserve provides suitable habitat for native wildlife species common in dry, wooded areas, such as acorn woodpecker (*Melanerpes formicivorus*), scrub jay (*Aphelocoma californica*), and western red bat (*Lasiurus blossevillii*). Rocky outcrop provides basking habitat for reptile species including granite spiny lizard (*Sceloporus orcutti*) and western fence lizard (*Sceloporus occidentalis*).

Native Grassland (Holland Code 42100)

Native grassland is a plant community that has a vegetative cover comprising of at least ten percent native grass species. Native grasslands provide suitable habitat for several native plant species that cannot generally compete against dense stands of non-native grass species. Native grassland is considered a Tier I Habitat under the North County MSCP (County of San Diego 2009b) and a RPO sensitive habitat land.

A 0.2-acre native grassland plant community is located in the center of the Preserve. The community is predominantly comprised of deergrass, but also includes native annual species such as blue dicks (*Dichelostemma capitatum*), blue-eyed grass (*Sisyrinchium bellum*), small flower melic grass (*Melica imperfecta*), Orcutt's brodiaea (*Brodiaea orcuttii*), and blue wild rye (*Elymus glaucus*), with some non-native grasses such as wild oat (*Avena fatua*).

Wildlife species commonly observed in this area include pale swallowtail (*Papilio eurymedon*), California ebony tarantula (*Aphonopelma eutylenum*), lesser goldfinch (*Carduelis psaltria*), and desert cottontail (*Sylvilagus audubonii*).

Non-Native Grassland (Holland Code 42200)

Non-native grassland is described as a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Non-native grassland is considered a Tier III Habitat under the North County MSCP (County of San Diego 2009b).

Non-native grassland occurs on 2.3 acres within the Preserve and is associated with human disturbance and adjacent developments. The northernmost stands are located near the residential development adjacent to the Preserve. The other stands of non-native grasslands on the Preserve are located adjacent to remnant structures that occur on the northern portion of the Preserve in an area known as "The

Compound" (see Section 4.0). The plant species that occurred in all the stands on the Preserve include short-podded mustard (*Hirschfeldia incana*), California brome (*Bromus carinatus*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), foxtail brome (*Bromus rubens*), common Mediterranean grass (*Schismus barbatus*), and rat-tail fescue (*Vulpia myuros*).

This plant community provides moderately suitable habitat for common, native bird species, such as lesser goldfinch and reptile species such as Coronado skink (*Eumeces skiltonianus interparietalis*).

Non-Native Vegetation (Holland Code 11000)

Non-native vegetation occurs on 0.5 acre of the Preserve and is comprised of several non-native trees and shrubs planted in association with the remnant structures ("The Compound") on the northern portion of the Preserve. As with the abandoned structures, the ornamental plants have remained unattended for a number of years. Tree species include black locust (*Robinia pseudoacacia*), lemon (*Citrus limonia*), and pine (*Pinus* sp.). Shrub species such as oleander (*Nerium oleander*), striata aloe (*Aloe saponaria x aloe*), charming centaury (*Centaurium venustum*), cutleaf geranium (*Geranium dissectum*), and regal pelargonium (*Pelargonium domesticum*) also occur within this area.

Tree species commonly planted in non-native vegetation habitats are generally taller than common native tree species in the area. Therefore, this community provides suitable perching opportunities for common raptor species, such as red-tailed hawk (*Buteo jamaicensis*), and nesting opportunities for common bird species, such as European starling (*Sturnus vulgaris*). This habitat may also provide roosting habitat for bat species.

Disturbed Habitat (Holland Code 11300)

Disturbed habitat consists of areas that are generally subject to significant human disturbance, often associated with development. The disturbed habitat within the Preserve consists of 6.7 acres of dirt access roads and disturbed trails that extend across the Preserve, and "The Compound" site that occurs on the northern portion of the Preserve. Neither the dirt roads nor the structures are currently maintained and both have experienced significant degradation. The disturbed habitat areas contain little to no vegetation and are generally considered very poor habitat.

The dirt access roads on the Preserve consist of heavily disturbed, barren soils subject to significant erosion. These areas provide suitable habitat for disturbance-following plant species, such as bird's beak (*Cordylanthus* sp.) and eriastrum (*Eriastrum* sp.), and reptile species that require open areas for basking. The remnant structures do not provide habitat for plant species, but do provide roosting and nesting habitat for some rodent, bat, and avian species.

3.2 Plant Species

3.2.1 Plant Species Present

A total of 133 plant species were observed on the Preserve during the 2009 baseline surveys. The Baseline Biodiversity Report (Appendix A) includes the complete list of all plant species observed during the surveys.

3.2.2 Rare, Threatened or Endangered Plants Present

A special-status plant species is one listed by federal or state agencies as threatened or endangered; considered to be of special status by one or more special interest groups, such as the California Native Plant Society (e.g., CNPS List 1, 2, 3, and 4 Plant Species); is included on the County's Sensitive Plant list (Group A, B, C, or D Listed Plants); or is covered under the MSCP.

Three special-status plant species were observed during the 2009 baseline surveys (Figure 10) including: Orcutt's brodiaea (*Brodiaea orcuttii*), heart-leaved pitcher sage (*Lepechinia cardiophylla*), and Engelmann oak (*Quercus engelmannii*). Each of these species is addressed below in more detail.

Orcutt's Brodiaea (*Brodiaea orcuttii*)

CNPS List 1B.1, County Group A, North County MSCP

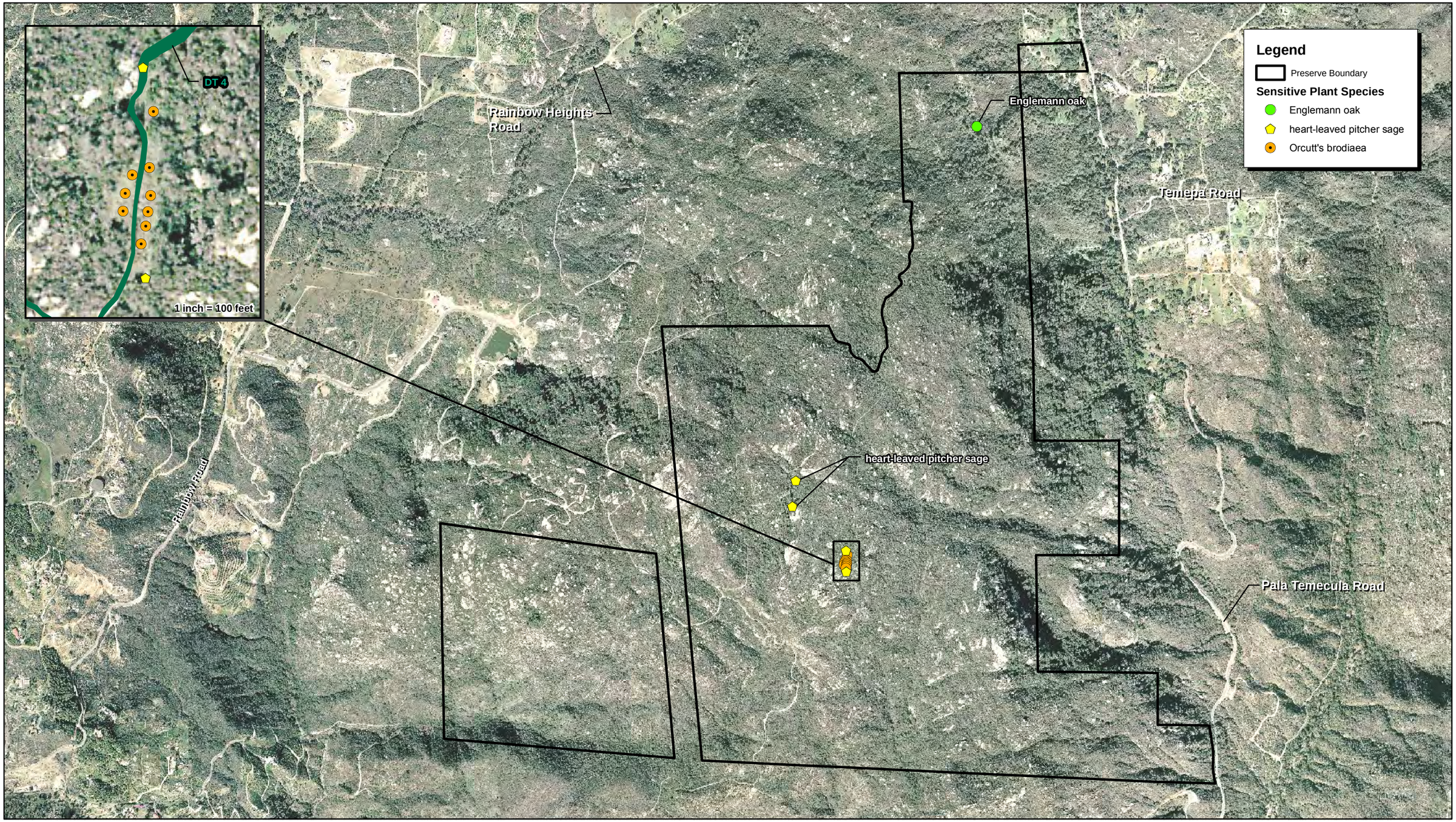
Orcutt's brodiaea is a bulbiferous herb that blooms in the late spring-summer months between May and July. It is typically found at elevations ranging between 90 to 5,076 feet AMSL in mesic environments supported by clay and sometimes serpentine soils.

This species was observed within the native grassland located in the central portion of the site at an elevation of approximately 2,080 feet AMSL. The soils in this area are likely located atop an impermeable rock. The conditions are too dry to create any pool formation, but the soils likely hold moisture for long periods, enabling the appropriate conditions for a population of Orcutt's brodiaea to establish. The population size is estimated to be between 150 and 200 plants.

Heart-Leaved Pitcher Sage (*Lepechinia cardiophylla*)

CNPS List 1B.2, County Group A

Heart-leaved pitcher sage is a perennial shrub that blooms between April and June and has an elevation range between 1,560 to 4,110 feet AMSL. It typically occurs on metavolcanic soils in openings in chaparral, closed-cone coniferous forest, and cismontane woodland habitats.



Source: San Diego North Aerial, 2005. MBA Field Survey Data, 2009. MBA GIS Data, 2010.

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Michael Brandman Associates

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Figure 10
Sensitive Plant Species Map

COUNTY OF SAN DIEGO PARKS • MOUNT OLYMPUS PRESERVE

Heart-leaved pitcher sage was observed within the native grassland located in the central portion of the Preserve at an elevation of approximately 2,080 feet AMSL. The native grassland plant community is bordered by chaparral and the ecotone between these two habitats provides suitable shady habitat for this species. This species was also observed in understory along a disturbed trail. The population within the Preserve is estimated to be between 20 and 30 plants.

Engelmann Oak (*Quercus engelmannii*)

CNPS List 4.2, County Group D, North County MSCP

Engelmann oak is a large, deciduous tree that occurs between 360 and 3,900 feet AMSL, and within chaparral, cismontane woodland, riparian woodland, oak savannah, and valley and foothill grassland habitats.

The occurrence of this species on the Preserve consists of a solitary tree, which was likely planted for ornamental purposes in association with the remnant buildings at "The Compound" in the northern portion of the Preserve.

3.2.3 Rare, Threatened or Endangered Plants with High Potential to Occur

Three special status plants have a high potential to occur within the Preserve including: Gander's ragwort (*Packera ganderi*), felt-leaved rock mint (*Monardella hypoleuca lanata*), and Robinson's pepper-grass (*Lepidium virginicum var. robinsonii*). Additional information on these species can be found in the Baseline Biodiversity Report (Appendix A).

Gander's Ragwort (*Packera ganderi*)

State-Listed Rare, CNPS List 1B.2, County Group A, North County MSCP

Gander's ragwort has been recorded within three miles of the Preserve. The open, disturbed areas along the margins of chaparral habitat occurring next to the dirt roads and in the open, rocky outcrops scattered across the Preserve contain suitable habitat for Gander's ragwort.

Felt-Leaved Rock Mint (*Monardella hypoleuca lanata*)

CNPS List 1B.2, County Group A, North County MSCP

Felt-leaved rock mint has been recorded within three miles of the Preserve. The vast majority of the Preserve contains suitable habitat for felt-leaved rock mint.

Robinson's Pepper-Grass (*Lepidium virginicum var. robinsonii*)

CNPS List 1B.2, County Group A

Robinson's pepper-grass has been recorded within three miles of the Preserve. The vast majority of the Preserve contains suitable habitat for Robinson's pepper-grass.

3.2.4 Non-native and/or Invasive Plant Species

The following non-native, invasive plant species were observed within the Preserve (Figure 11):

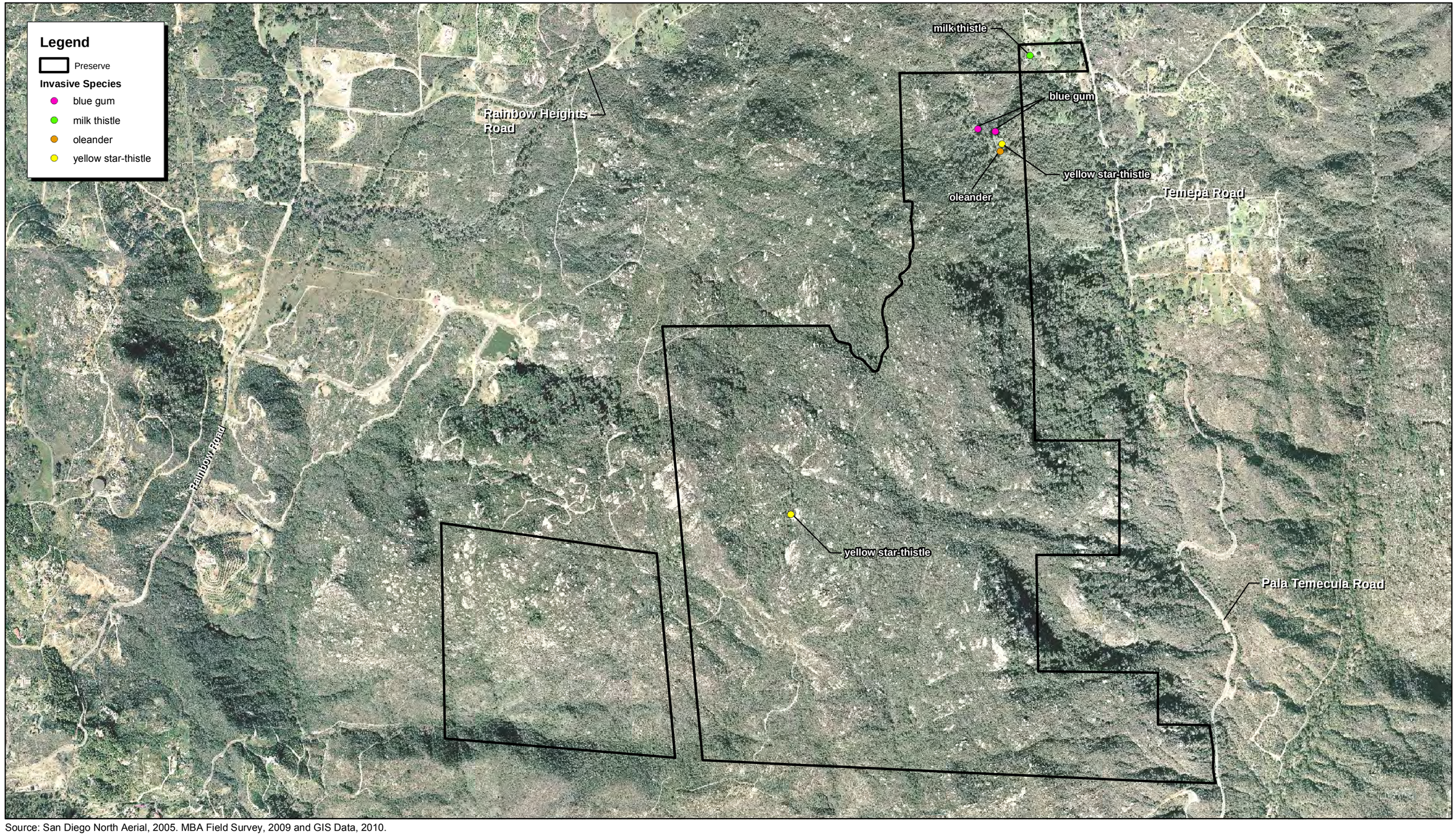
- Yellow starthistle (Centaurea solstitialis)
- Milk thistle (Silybum marianum)
- Blue gum (Eucalyptus globulus)
- Oleander (Nerium oleander)

All the significant stands of invasive plants were observed within the disturbed "Compound" site, with the exception of a small stand of yellow starthistle in the central portion of the Preserve and milk thistle in the northeast corner. The majority of the non-native species within the "Compound" area were planted many years ago as part of the original landscaping plan for this historical site.

Three of these invasive, non-native species (yellow starthistle, milk thistle, and blue gum) are considered California Invasive Plant Council (Cal-IPC) listed plants with overall ratings of "limited" to "high". The fourth species, oleander, was evaluated by Cal-IPC, but is not listed. In addition, yellow starthistle is also included on the State Noxious Weed List and is a primary target species of the San Diego Weed Management Area (SDWMA), a collaborative group working together to control selected invasive plant species within San Diego County.

Yellow starthistle is a bushy winter annual that invades 12 million acres in California. It inhabits open hills, grasslands, open woodlands, fields, roadsides, and rangelands. This species is considered one of the most serious rangeland weeds in the State (Cal-IPC 2010) and is included on the California Noxious Weed List "C". The Cal-IPC inventory categorizes yellow starthistle as having an overall rating of "high". A "high" rating signifies species that have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically. Habitats of concern include grasslands and woodlands (Cal-IPC 2010). Yellow starthistle has also been targeted by the SDWMA as one of four primary species for mapping and control efforts within the County.

Milk thistle is a winter annual or biennial with prickly leaves and is widely spread throughout California in disturbed areas. This species produces tall, dense stands that outcompete native species. The Cal-IPC inventory categorizes milk thistle as having an overall rating of "limited". A "limited" rating signifies species that are invasive, but their ecological impacts are minor on statewide level or there was not enough information to justify a higher score. Their reproductive biology and other



Source: San Diego North Aerial, 2005. MBA Field Survey, 2009 and GIS Data, 2010.

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Michael Brandman Associates

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Figure 11
Invasive Species Location Map

COUNTY OF SAN DIEGO PARKS • MOUNT OLYMPUS PRESERVE

attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic. Habitats of concern include grasslands and riparian areas (Cal-IPC 2010).

Blue gum is a eucalyptus tree found throughout California, but has primarily escaped to become invasive along the coast from northern to southern California. Native plants are unable to grow underneath groves of eucalyptus. The Cal-IPC inventory categorizes blue gum as having an overall rating of "moderate". A "moderate" rating signifies species that have substantial and apparent, but generally not severe, ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Habitats of concern include riparian areas, coastal grasslands and scrub; however, impacts are typically higher in coastal areas (Cal-IPC 2010). This species is considered part of the historic landscape of the Preserve.

Oleander is drought tolerant evergreen shrub native to northern Africa, the eastern Mediterranean basin and Southeast Asia. It is extensively used in landscaping along highways and is widely cultivated for ornament in temperate and warm areas due to its showy flowers. This species was evaluated by Cal-IPC but is not listed as it is not known to be invasive. However, oleander is toxic and is very poisonous to humans, many animals and birds. A single leaf can be lethal to a child eating it, although mortality is generally low in humans. The lethal dose of green oleander leaves for cattle and horses is 0.005% of the animals body weight (Cal-IPC 2010). This species is considered part of the historic landscape of the Preserve.

3.3 Wildlife Species

3.3.1 Wildlife Species Present

A total of 148 wildlife species were observed within the Preserve during the 2009 baseline surveys. The Baseline Biodiversity Report (Appendix A) includes the complete list of all wildlife species observed during the surveys.

Invertebrates

A total of 67 invertebrates were observed within the Preserve during the 2009 surveys, none of which are considered sensitive species.

Butterflies

A total of 16 butterfly species were observed from six different families including brush-foots, swallowtails, blues, skippers, whites and sulfurs, and metalmarks. The most commonly observed butterfly species include pale swallowtail (*Papilio eurymedon*), cabbage white (*Pieris rapae*), acmon blue (*Icaricia acmon*), California sister (*Adelpha bredowii californica*), funereal dusky wing (*Erynnis funeralis*),

mountain mahogany hairstreak (*Satyrium tetra*), and Behr's metalmark (*Apodemia mormo virgulti*).

A small patch of Quino checkerspot butterfly (*Euphydryas editha quino*) host plant, western plantain (*Plantago erecta*), was observed within the Preserve. Other key habitat elements such as rocky outcrops, nectar sources, and cryptogrammic crust are also present. However, there have been no recorded observations of Quino within five miles of the Preserve and, based on the habitat assessment conducted in 2009, this area is considered excluded from further focused surveys for Quino checkerspot butterfly. Hermes copper (*Lycaena hermes*) is not known to occur in the area (CNDDB 2009); however, this species' preferred host plant, redberry buckthorn (*Rhamnus crocea*), was observed within the Preserve.

Other Invertebrates

The most common species captured in the pitfall traps include harvester ant (*Pogonomyrmex californicus*), carpenter ant (*Camponotus* sp.), velvet ant (*Dasymutilla occidentalis*), armored stink beetle (*Coelocnemis californicus*), springtail (*Ctenolepisma* sp.), and bristletail (*Trigoniophthalmus alternatus*). The predatory invertebrates commonly observed included wolf spider (*Sosippus californicus*), ground spider (*Zelotus gynethus*), tarantula (*Aphonopelma eutylenum*), and California common scorpion (*Paruroctonus silvestrii*). Several incidental observations were also made including winged species such as tarantula hawk (*Pepsis chrysothemis*) and familiar bluet damselfly (*Enallagma civile*), as well as garden orbweaver (*Argiope* sp.).

Amphibians

The conditions on the Preserve provide little to no suitable habitat for any amphibian species. No aquatic habitats commonly associated with amphibian reproduction occur within the Preserve. Amphibian species anticipated to occur within the Preserve are those species that require very little association with aquatic habitats. A single western toad (*Bufo boreas*) was observed in the northeastern corner of the Preserve during the 2009 surveys. It is highly likely that this species was foraging within the Preserve, but reproduces elsewhere in the vicinity.

Reptiles

A total of 10 reptile species were observed within the Preserve during the 2009 surveys. The pitfall traps captured several small reptile species including various juvenile and adult lizards and skinks, such as Coronado skink (*Eumeces skiltonianus interparietalis*), western red-tailed skink (*Eumeces gilberti rubricaudatus*), coastal western whiptail (*Aspidoscelis tigris*), and western fence lizard (*Sceloporus occidentalis*), as well as a single San Diego ringneck snake (*Diadophis punctatus similis*). A single chaparral whipsnake (*Masticophis lateralis lateralis*) was captured in a funnel trap. Species detected during incidental observations include night snake

(*Hypsiglena torquata*), speckled rattlesnake (*Crotalus mitchelli*), San Diego horned lizard (*Phrynosoma coronatum*), granite spiny lizard (*Sceloporus orcutti*), and side-blotched lizard (*Uta stansburiana*).

Birds

A total of 42 avian species were detected on the Preserve during the 2009 surveys. The dominant plant community within the Preserve is chaparral and the vast majority of avian species observed are known to occur in this community. These species include wrentit (*Chamaea fasciata*), California quail (*Callipepla californica*), California towhee (*Pipilo crissalis*), California thrasher (*Toxostoma redivivum*), western scrub jay (*Aphelocoma californica*), blue-grey gnatcatcher (*Polioptila caerulea*), phainopepla (*Phainopepla nitens*), canyon wren (*Catherpes mexicanus*), white-throated swift (*Aeronautes saxatalis*), and Costa's hummingbird (*Calypte costae*).

In addition to the species common in chaparral, several woodland bird species were observed within the northernmost portion of the Preserve near the remnant buildings and adjacent residential development. These species include Cooper's hawk (*Accipiter cooperii*), house wren (*Troglodytes aedon*), Hutton's vireo (*Vireo huttoni*), and acorn woodpecker (*Melanerpes formicivorus*). Nocturnal avian species detected include great horned owl (*Bubo virginianus*), barn owl (*Tyto alba*), and common poorwill (*Phalaenoptilus nuttallii*).

Mammals

A total of 27 mammal species were observed or otherwise detected across the Preserve during the 2009 surveys.

Small Mammals

The small mammal species captured during the mammal trapping efforts include dusky-footed woodrat (*Neotoma fuscipes*), western harvest mouse (*Reithrodontomys megalotis*), brush mouse (*Peromyscus boylii*), California mouse (*Chaetodipus californicus*), California pocket mouse (*Chaetodipus californicus*), and desert pocket mouse (*Chaetodipus penicillatus*). In addition to the trapping effort, the pitfall trap also caught one ornate shrew (*Sorex ornatus*). Incidental observations during the surveys detected desert cottontail (*Sylvilagus audubonii*), brush rabbit (*Sylvilagus bachmani*), and California ground squirrel (*Spermophilus beecheyi*).

Medium to Large Mammals

The scent stations and motion sensor cameras detected fewer medium and large mammals than anticipated. The species commonly detected include coyote (*Canis latrans*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*). Despite the high potential for

mule deer (*Odocoileus hemionus*), grey fox (*Urocyon cinereoargenteus*), and mountain lion (*Felis concolor*) on-site, no sign was observed in the Preserve.

Bats

The bat acoustical surveys detected nine species of bat on the Preserve. The species detected include pallid bat (*Antrozous pallidus*), big brown bat (*Eptesicus fuscus*), western red bat (*Lasiurus blossevillii*), California myotis (*Myotis californicus*), little brown myotis (*Myotis lucifugus*), Yuma myotis (*Myotis yumanensis*), western pipistrelle (*Pipistrellus hesperus*), greater western mastiff bat (*Eumops perotis*), and Brazilian free-tailed bat (*Tadarida brasiliensis*).

3.3.2 Rare, Threatened or Endangered Wildlife Present

A special-status wildlife species is one listed by federal or state agencies as threatened or endangered; is included on the County's Sensitive Animal List (Group 1 or 2 Species); or is covered under the MSCP. Thirteen special-status wildlife species were detected at the Preserve (Figure 12). Each of these species is addressed below in more detail.

Orange-Throated Whiptail (*Cnemidophorus hyperythrus beldingi*)

State Species of Special Concern, County Group 2, North County MSCP

The orange-throated whiptail occurs in coastal scrub, chaparral, and valley and foothill hardwood habitats. It is also found in washes and sandy areas with patches of brush and rocks. Perennial plants are required to support its primary prey, termites. This species was observed foraging near one of the sampling locations in the western portion of the Preserve.

San Diego Ringneck Snake (*Diadophis punctatus* sp*. similis)*

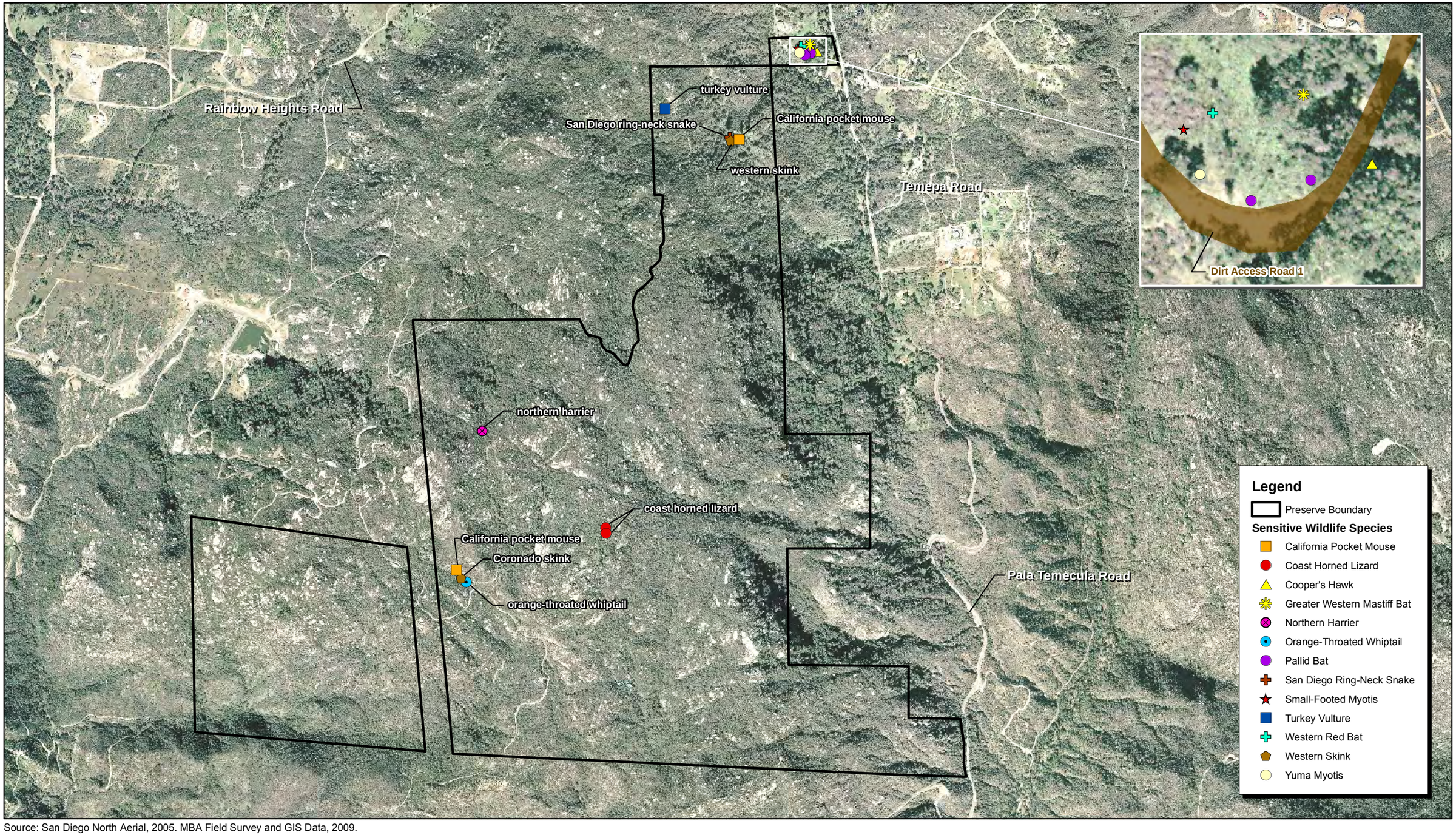
County Group 2

The San Diego ringneck snake is commonly found in wet meadows and moist rocky hillsides, gardens, farmlands, grassland, chaparral, mixed coniferous forests, and woodlands. This species was observed in a pitfall trap in the northeastern portion of the Preserve within dense oak woodland with thin leaf litter.

Coronado Skink (*Eumeces skiltonianus interparietalis*)

State Species of Special Concern, County Group 2

Coronado skinks commonly occur in grassland, chaparral, pinyon-juniper and juniper sage woodland, pine-oak and pine forest habitats in the coastal ranges of Southern California, particularly in San Diego County. The species prefers early successional stages or open areas and is typically found in rocky areas close to streams and on



Source: San Diego North Aerial, 2005. MBA Field Survey and GIS Data, 2009.

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Michael Baker Jr. Inc. Michael Baker International Associates

Figure 12
Sensitive Wildlife Species Map

dry hillsides. This species was observed in a pitfall trap in the western portion of the Preserve.

San Diego (Coast) Horned Lizard *(Phyrnosoma coronatum blainvillii*)

State Species of Special Concern, County Group 2, North County MSCP

San Diego horned lizards inhabit coastal sage scrub and chaparral in arid and semi-arid climate conditions and prefer friable, rocky, or shallow sandy soils. This species is commonly found basking in open dirt access roads and trails. This species relies on camouflage to avoid predation and often stays motionless when approached. This species is known to feed on harvester ants (*Pogonomyrmex californicus*). This species was observed at the intersection of two disturbed trails in the central portion of the Preserve during a weekly monitoring visit.

Cooper's Hawk (*Accipiter cooperii*)

State Taxa to Watch (Nesting), County Group 1

Cooper's hawk occurs in open, uninterrupted, or marginal type woodlands. Nest sites, which are sensitive, commonly occur in riparian growths of deciduous trees, such as live oaks. It also occurs in other various forest habitats that are near water. Dense woodlands and forests are the primary foraging habitat for this raptor. This species was observed in the dense oak woodland area in the northeastern portion of the Preserve. It is highly likely that this species nests in the oak woodland habitat onsite or immediately adjacent to the Preserve.

Turkey Vulture (*Cathartes aura*)

County Group 1

This scavenger is found in open country, woodlands, and near farms, but has a wide foraging range that may cover many habitats. The vast majority of the Preserve contains suitable foraging habitat for turkey vulture. This species was observed in the northern portion of the Preserve.

Northern Harrier (*Circus cyaneus*)

State Species of Special Concern (Nesting), County Group 1, North County MSCP

Northern harriers occur in open grasslands, agricultural fields, wetlands, and open coastal sage scrub. This species has been known to forage over long distances. A single northern harrier was observed overhead near one of the disturbed trails. This species was likely flying over the Preserve to suitable habitat in the vicinity.

California Pocket Mouse (*Chaetodipus californicus*)

State Species of Special Concern, County Group 2

California pocket mouse occurs in a variety of habitats in San Diego County including coastal scrub, chaparral, and grasslands, and is commonly associated with grass-chaparral edges. Individuals were trapped at two sampling locations in the western and northeastern portions of the Preserve.

Pallid Bat (*Antrozous pallidus*)

State Species of Special Concern, County Group 2, North County MSCP

Pallid bats roost in rock crevices, tree hollows, mines, caves and a variety of anthropogenic structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. They have also been reported roosting in stone piles. This species was detected through Sonabat identification in the northeast corner of the Preserve. Suitable rock crevices, tree hollows, and structures that may provide suitable roosting habitat occur within the Preserve.

Small-footed Myotis (*Myotis ciliolabrum*)

County Group 2

Small-footed myotis are found in a wide range of habitat types; however, primarily within arid wooded and brushy uplands, including open stands in forests and woodlands, adjacent to water. Caves, buildings, mines, and crevices are used for refuge. Suitable rock crevices and structures occur within the Preserve that may provide suitable roosting habitat. This species was detected at one of the bat sampling locations in the northeast portion of the Preserve.

Yuma Myotis (*Myotis yumanensis*)

County Group 2

Yuma myotis occurs near open water associated with woodlands and forests; maternity colonies occur in caves, mines, buildings, or crevices. Suitable rock crevices and structures that may provide suitable roosting habitat occur within the Preserve. This species was detected at the bat sampling location in the northeast corner of the Preserve.

Greater Western Mastiff Bat *(Eumops perotis)*

State Species of Special Concern, County Group 2

The greater western mastiff bat is often found in rocky areas and cliff faces; it roosts in cliff crevices and buildings. Suitable rock crevices and structures occur within the Preserve that may provide suitable roosting habitat. This species was detected at the bat sampling location in the northeast corner of the Preserve.

Western Red Bat (*Lasiurus blossevillii*)

State Species of Special Concern, County Group 2

Western red bats roost primarily within trees throughout a wide range of habitat from sea level to mixed conifer forests. The species prefers habitat edges and mosaics with trees that are protected by dense canopies and have open areas in the understory for foraging. This species was detected at the bat sampling location in the northeast corner of the Preserve.

3.3.3 Rare, Threatened or Endangered Wildlife with High Potential to Occur

One special status wildlife species has a high potential to occur within the Preserve, northern red diamond rattlesnake (*Crotalus ruber ruber*). Additional information on this species can be found in the Baseline Biodiversity Report (Appendix A).

Northern Red Diamond Rattlesnake (*Crotalus ruber ruber*)

State Species of Special Concern, North County MSCP

Northern red diamond rattlesnake has been recorded within five miles of the Preserve. The vast majority of the Preserve contains suitable habitat for northern red diamond rattlesnake.

3.3.4 Non-native and/or Invasive Wildlife Species

One pest species, brown-headed cowbird (*Molothrus ater*) was detected on the Preserve during the 2009 surveys. This species is a brood parasite, which destroys the eggs in a different avian species' active nest and replaces them with their own eggs. Brown-headed cowbird parasitism has been attributed as a significant contributor to population declines of several special-status avian species. Brown-headed cowbird was observed at three sampling locations within a two-day span. The detection is likely due to a flyover by an individual. In addition, domestic dog (*Canis familiaris*) was observed on the Preserve.

3.4 Overall Biological and Conservation Value

The Preserve lies within the Mount Olympus Core Area. This core area consists of 9,356 acres east of the community of Rainbow, north of Pala Reservation, and south of Pechanga Reservation (Riverside County). Approximately 94% of this core area contains natural vegetation communities.

According to the MSCP Habitat Evaluation Model, the habitat within the Preserve ranges from low to very high in value. The most extensive habitat within the Preserve is southern mixed chaparral, which is considered MSCP Tier III habitat and supports a variety of sensitive plant and wildlife species. The other habitat types within the Preserve are considered either MSCP Tier I habitat (native grassland and oak woodland) or MSCP Tier III habitat (non-native grassland).

3.4.1 Wildlife Linkages and Corridors

The Mount Olympus Preserve is an important component of a large regional linkage between the Santa Ana Mountains and Palomar Mountains, also known as the Santa Ana-Palomar wildlife corridor. The Preserve is located within the central part of the corridor along the southern edge.

The Preserve is crucial in providing an upland area linking Gomez Creek to the west and Pala Creek to the east. Most animals seek cover when moving across the landscape and, therefore, often seek out riparian areas as their preferred movement corridors. Although the Preserve does not contain an extensive riparian area for movement, the many dirt access roads and trails facilitate animal movement across an otherwise dense stand of southern mixed chaparral.

During the 2009 surveys, camera tracking stations identified several small to medium mammal species moving through this area including coyote (*Canis latrans*), bobcat (*Lynx rufus*), desert cottontail (*Sylvilagus audubonii*), and raccoon (*Procyon lotor*).

4.0 CULTURAL RESOURCES

San Diego County is characterized by a rich and varied historical past. Cultural resources which reflect this history consist of archaeological remains, historic buildings, artifacts, photographs, oral histories, Native American memories and public documents. This RMP identifies the known cultural resources within Mount Olympus Preserve and describes areas of potential resources.

In 2009, an archaeological survey and site inventory was completed for the Preserve in compliance with the California Environmental Quality Act (CEQA) and County environmental guidelines to assist in continued and future land use and resource protection planning. The results of this study can be found in the report entitled, *Cultural Resources Inventory of the Mt. Olympus Preserve Project for the County of San Diego Parks Department, San Diego County, California*, dated October 22, 2009, and is attached as Appendix B (MBA 2009). This Phase I inventory involved site records searches, literature reviews, Native American consultation, historic map checks, field survey, and resource documentation. The survey and inventory results were used in the preparation of this RMP.

4.1 Site History

The following is a brief overview of the prehistoric and historic context in which to understand the relevance of sites found in the general vicinity of the project area. This section is not intended to serve as a generalized overview.

4.1.1 The Luiseño

Currently, many traditional Luiseño tribal groups characterize the region as their ancestral homeland and their elders believe that they have resided in the area for thousands of years. The Luiseño patterns in this area may have been relatively stable until mission secularization in 1834. The history of Pala is both interesting from a historic standpoint in that the current reservation was the creation of the U.S. Government in 1875 for locally displaced Luiseño peoples. Even so, attempts were made to remove them for the next 30 years. Historians have never identified the location of the original village at Pala (True and Griset 1988), but apparently the San Luis Rey River bottom near Pala was being utilized by the ancestors of Luiseño peoples when the Spanish established Missions in the late 1700s.

4.1.2 Spanish Period

In 1769, the Spanish sent Father Junipero Serra and a military escort to explore coastal California and choose locations for a chain of missions that would convert the native population and serve as an anchor for Spanish ambitions in the territory. Over the next several decades, 21 missions and six *asistencias* were established. The Franciscan missionaries who followed in Father Serra's trail arrived in the San

Luis Rey area in 1796. The Franciscans used land of the interior within a day's ride to pasture sheep, horses, and cattle as well as raise crops. In 1810, the mission built a large granary at what was to become the community of Pala and soon Father Antonio Peyri began the process to establish an *asistencia*. In June 1816, the Mission San Antonio de Padua *asistencia* was founded as an outpost for Mission San Luis Rey. By 1820, the *asistencia* had baptized over 1,300 Luiseños and built a church dedicated to Saint Anthony.

4.1.3 The Mexican Period

By the early 1830s, Mexico had achieved its independence from Spain and established large ranchos with vast herds of cattle across the land. In 1833, in its desire for more grazing and agricultural land, the decision was made by the Mexican government to secularize the missions, and many of the mission lands became land grants to Californio families. In 1835, Father Peyri's successor, Father Buenaventura Fortuny, surrendered Mission San Luis Rey de Francia and the Pala *assistencia* to a government commission (Leffingwell 2005). In the 1840s lands known as "ranchos" in and around the Temecula and Wolf valleys were granted to Mexican soldiers and important families for the purpose of cattle grazing.

4.1.4 American Period

Between 1848 and the 1870s southern California was opened up to white settlers and pressure was placed upon the local Indians who had settled permanently on well-watered lands their ancestors had used. Although the new State of California had attempted to give local tribes lands upon which to settle through legislation, there was pressure to remove them. In the 1870s President Grant ordered the creation of several reservations in San Diego County, but severe political battles over land and water continued well into the 1920s.

In the 1880s, San Diego County was experiencing a land boom. Newcomers purchased land in large parcels, the City of San Diego grew rapidly into a large commercial center, and the North County area saw a boom in ranching and farming activities. By the late 1880s, the Pala area exhibited several large operating ranches and farms.

Records show that the west half of the SE quarter of Section 4, all of the SE portion of Section 8, and the SW quarter of Section 9 was patented by Everett Harvie Lea. Under the Homestead Entry-Stock Raising Act, a total of 300 acres was granted to him in1936. Lea, born in Victoria, Canada in 1882, immigrated to southern California in 1925 and applied for a declaration of intention to become a citizen in Los Angeles District Court in 1928. At that time, a person was required to reside in the U.S. for seven years before becoming a naturalized citizen.

Records show Mr. Lea died in Riverside in 1972. A public school teacher, he resided in Long Beach when he applied for citizenship. Once Lea acquired the land in 1936, he had three years to make improvements to his properties, then full title

would be granted and the land could be sold free and clear. It remains a mystery as to why a schoolteacher in Long Beach would lay claim to undeveloped property in San Diego County, but it is likely that it was a rather risk-free way of getting free land at a time when development and land values in California were increasing. Clearly, Lea did not have the ability to work the property and any development plans he had had were quickly abandoned.

The Lea property belonged to the U.S. Government when James Boynton Smith was given the deed in 1939. This suggests that Lea did not follow through on his claim per regulations associated with the Stock-Raising Act, but a structure and a water collection system at the north end of the Preserve in a site known as "The Compound" may have been built by Lea before Smith assumed title. Smith was the recipient of much land in Section 9 and since he was able to retain title to the property after being granted ownership, improvements were probably made on the property following the regulations at the time. Smith then took the Lea land, which allowed him to link the acreage in Section 9 with Pala Temecula Road.

The south half of the SW quarter of Section 4 (80 acres), and 480 acres in Section 9, was patented by Smith in 1938 using the parameters of the Stock-Raising Act. As noted above, once he acquired the property, Smith had three years to make improvements associated with raising stock. Instead, Smith deeded the Compound parcel to the "Olympian Society" in 1940 and deeded his properties in Section 9 to the same group forming a parcel of about 640 acres in total size.

The term "Olympian" or 'Olympic' was often used in the 1940s and 1950s as a code word for naturist or nudist societies, and this type of organization became increasingly popular in the U.S. beginning about 1933. It is not certain just when Mt. Olympus was named, but the 1942 Temecula California USGS topographic map names the high point "Olympus" and the main access road off Pala Temecula Road with three buildings at the main house site are shown on the map. It is possible that most of the buildings in The Compound were built for a small privately funded nudist group as the structures, walls and landscaping are quite extensive and appear to have been built over a several year period.

In 1953, the Olympian Society deeded the property to Whitney H. Slocomb (a write-in presidential candidate for the Greenback Party in 1960) and Jewell Ray Slocomb. The Compound may have seen some improvements between 1953 and 1959, but it is likely no improvements were made to the cabins and facilities west of the main house. It is suspected that Slocomb belonged to nudist organizations and bought the camp for that purpose.

In 1959, Slocomb deeded the combined properties to the Morris and Cianfrani families in 1959. The Cianfranis held title for only five days and then deeded their holdings to the Morris's. Given what is known about the Morris's, it is likely the nudist activities at the camp had been abandoned. Little may have been done to

maintain the cabins and facilities west of the main house. The Morris's probably lived at the main house until they sold it the property in 1976.

Dr. Arnold Ariaundo and Dr. M. Brent Campbell took possession of the combined properties in 1976. The Ariaudos and Campbells sold the property to the County of San Diego in 1991. Given the fact that improvements to The Compound do not appear to have been made between 1976 and 1991, both parties may have used the land as a vacation retreat during their ownership period.

4.2 Native American Consultation

The Native American Heritage Commission was contacted on June 4, 2009 requesting a Sacred Lands File search for traditional cultural properties. The results of the search, dated June 11, 2009, indicated that no known Native American resources are located near the Preserve area. The response letter also provided a listing of Native American contacts that might have knowledge as to whether or not cultural resources known to local Tribes are within the vicinity. For this reason, and to ensure that all potential Native American resources are adequately addressed, letters to each of the listed tribal contacts were sent on June 19, 2009. One letter response from the Pala Band of Mission Indians was received. The Pala requested that they be kept informed of activities associated with the Preserve including copies of reports, further investigations and information on any sites found. In addition, Cameron Linton of the Pechanga Band Cultural Resource Division was on site during the survey fieldwork phase.

4.3 Cultural Resource Descriptions

4.3.1 Prehistoric Resources

P37-030652 (CA-SDI-19471)

The site consists of a single pictograph located inside a base of a large boulder.

4.3.2 Historic Resources

The Compound Complex: P37-030647

The site consists of numerous small wood framed structures and features, including a runoff water collection system, with distinctive purposes constructed between about 1938 and the 1970s. The site appears to have been used as a residence starting about 1938, then a vacation or resort complex between 1940 and 1958, then may have been a single family residence after about 1958. The property is likely to have been completely abandoned in the late 1970s.

P37-030648

This is a small structure foundation exhibiting wooden flooring, collapsed walls, and two bed frames. Detritus associated with the structure surrounds it and this has been pulled down either by vandals or windstorms. An intact outhouse is located southeast of the remnant building.

P37-030649

Isolate P37-030649 consists of two brass markers placed on the bedrock boulders that form the peak at Mt. Olympus. The caps were placed at this location by the Army Corps of Engineers in 1920.

4.4 Resource Significance

Table 2 lists the sites located within the Preserve and includes the reasons for their potential significance. Based on the results of the record searches, background information, and the results of field survey, prehistoric site P37-030652 is considered significant by the County Guidelines.

Table 2. Potential Significance of Sites in the Preserve

Site Number	Potential Significance	Discussion
P37-030652	Significant	Pictograph sites in the Pala region are rare and carry high significance to local Native American Tribes. Clearly significant, further analysis of the panel will allow development of the area without impact to this resource.
P37-030647	Not Significant	The site is a large historic structure complex that is not considered significant at the State or Local level of analysis.
P37-030648	Not Significant	The small structural feature at this site was probably built during Olympian Society era and appears to have been built after The Compound was in use.
P37-030649	Not Significant	Older surveyor's brass caps are common to this era and recordation of the feature has exhausted its research potential. No further research is necessary.

5.0 RESOURCE MANAGEMENT

5.1 Management Goals and Objectives

Management of the natural and cultural resources within the Preserve will be guided by the general goals and objectives of both the County and the MSCP.

5.1.1 County-Specific

County-specific goals and objectives used to guide the management of resources within the Preserve can be found in the County Strategic Plan, the DPR Strategic Plan, and the San Diego County General Plan (including the Rainbow Community Plan and the Pala/Pauma Subregional Plan). The County's overall goal or mission, as indicated in the 2009-2014 Strategic Plan, is to provide the residents of San Diego County with superior County services in terms of quality, timeliness and value in order to improve the region's quality of life. The Strategic Plan for Parks and Recreation is closely aligned with the County's strategic initiatives.

The DPR Strategic Plan 2008-2013, outlines the department's priorities for accomplishing its mission over a five-year period. The overall goal or mission of the DPR is to provide opportunities for high quality parks and recreation experiences and to preserve regionally significant natural and cultural resources. The DPR makes this mission a reality through programs that create healthy communities, protect valuable natural and cultural resources, provide recreation opportunities, reduce crime and vandalism, and foster economic development.

In addition, County specific goals and guidelines can be found in the San Diego County General Plan. Specifically, the Preserve is located within the Rainbow Community Plan and the Pala/Pauma Subregional Plan. The Rainbow and Pala/Pauma plans have goals to preserve unique natural resources, natural landscape, wildlife habitat, and archaeological sites. Both plans designate Mount Olympus as a Resource Conservation Area.

5.1.2 MSCP-Related

The MSCP Plan and the North County MSCP Plan provide both general and segment-specific goals and objectives. The Preserve is included in the North County MSCP preserve system and is located within the Mount Olympus Core Area. "An objective of the MSCP is to conserve a connected system of biologically viable habitat lands in a manner that maximizes the protection of sensitive species and precludes the need for future listings of species as threatened or endangered" (City of San Diego 1998). In order to maintain the biodiversity and ecosystem health in the region while ensuring quality of life and economic growth opportunities, the North County MSCP Plan incorporates the following underlying biological and social goals:

- Develop a preserve system that will preserve ecosystem functions and values, maintain the range of natural biological communities and native species within the Plan area and contribute to the recovery of endangered, threatened, and sensitive species and their habitats.

- Protect the quality of life for residents and visitors by maintaining the scenic beauty, natural biological diversity, cultural resources, and recreational opportunities within the Plan area.

In addition, the North County MSCP Framework Resource Management Plan (Framework RMP) provides specific conservation goals for the Mount Olympus Core Area including the following which are applicable to the Preserve:

- Conserve sensitive vegetation communities including oak woodlands and coniferous forests.

- Conserve large contiguous habitat blocks around Mount Olympus and Magee Ridge.

- Conserve cliff-faces utilized by sensitive species, such as raptors, swallows, and bats, that nest or roost in these areas.

- Minimize impacts to the Santa Margarita River, Trujillo Creek, Magee Creek, and Pala Creek watersheds. These are high integrity watersheds with little developed area and few roads.

5.1.3 Management Directives and Implementation Measures

Based on the above management goals and objectives, recommended management directives have been identified. In accordance with the Framework RMP, specific conservation actions that will be performed on the Preserve fall into three categories: land stewardship, adaptive management actions, and biological monitoring. In general, land stewardship consists of the activities necessary for maintaining the integrity (i.e., functional ecosystem and protected resources) of preserved lands. Adaptive management actions include activities that are designed to benefit specific ecological features (e.g., certain species, vegetation communities or ecological processes) based upon information that has been gained through casual observations or scientific monitoring. Biological monitoring refers to focused assessments of species or vegetation communities.

The ASMDs provided herein have been designated as Priority 1 or Priority 2. This designation recognizes the fact that many of the directives cannot be immediately implemented, but instead will occur over the life of the MSCP. The ability to implement and the timing of many of the management directives will be directly related to the availability of funding in any fiscal year and on the priority. The

priorities are, therefore, intended to assist in decisions on where and how to spend limited funds. Priority designations are as follows:

Priority 1: Directives that protect the resources in the Preserve and the MSCP preserve, including management actions that are necessary to ensure that sensitive species are adequately protected.

Priority 2: Directives other than those required for sensitive species status and other long-term items that may be implemented during the life of the MSCP as funding becomes available.

The North County MSCP Framework RMP provides habitat specific management and monitoring guidelines which address the major factors that impact specific habitat types including: Riparian, Marsh and Wet Meadow Habitat; Coastal Sage Scrub, Chaparral, and Grassland Habitat; Oak Woodlands and Coniferous Forest; and Vernal Pools. The major factors that can impact these habitats include: hydrology, invasive non-native plant and animal species, and fire. Species that are most likely to benefit from these habitat based management and monitoring guidelines are detailed for each habitat type. Additionally, the North County MSCP Plan conservation analysis for specific species (such as narrow endemics, threatened or endangered species) provides species specific management and monitoring guidance.

This RMP includes management directives and implementation measures to meet MSCP goals and objectives under the following elements: A) Biological Resources, B) Vegetation Management, C) Public Use, Trails, and Recreation, D) Operations and Facility Maintenance and E) Cultural Resources.

5.2 Biological Resources Element (A)

5.2.1 Biological Monitoring

Biological monitoring will be performed onsite to gather information that will assist DPR in making land management decisions to conform to MSCP goals and objectives, as well as DPR objectives. The biological monitoring that will occur will be designed to guide decisions at the individual preserve level. The first year of monitoring has been conducted (baseline surveys) and the results are included as Appendix A. Additional monitoring results will be incorporated into stand alone monitoring reports. These reports may recommend revisions to the management directives contained within this RMP.

Monitoring at the preserve scale is focused on obtaining information for management purposes, but can be useful for subregional and ecoregional monitoring assessment as well. DPR will monitor the status and trends of MSCP covered species (in accordance with the Framework RMP) and collect data on key environmental resources within the Preserve to select, prioritize, and measure the effectiveness of management activities. In most instances, the array of threats or

stressors on preserved habitats, their mechanisms of action, and the responses of the habitats and associated species are not completely understood at this time. Therefore, ASMDs must comprehensively address resource management issues for each preserve. Information collected within each preserve will be aggregated for analysis at the subregion and ecoregion scales.

The key to successful monitoring at the individual preserve level is: close coordination with stakeholder groups that are performing subregional monitoring; sharing of data, future plans and schedules; and keeping abreast of monitoring methods as they are developed. To ensure uniformity in the gathering and treatment of data, a (SANDAG) land management working group has been formed and has designated a land manager who will assist jurisdictions in coordinating monitoring programs, analyzing data, and providing other information and technical assistance. The County is an active participant in the development of monitoring methods for the MSCP. Once these methods are fully developed, and as feasible, these methods may be adapted for North County MSCP preserves.

DPR will follow the habitat and species specific monitoring requirements outlined in the North County MSCP Plan. Additionally, DPR will follow USGS rare plant monitoring protocols (McEachern et al. 2007), San Diego State University habitat and vegetation community monitoring protocols (Deutschman et al. 2009) and USFWS wildlife monitoring protocols (USFWS 2008). These references will assist DPR in developing monitoring methods at the preserve level, as well as the management directives that are identified for specific species in this document.

Management Directive A.1 – Conduct habitat monitoring to ensure MSCP goals and DPR objectives are met (*Priority 1*)

***Implementation Measure A.1.1*:** DPR will conduct habitat monitoring at five-year intervals. On-going monitoring within the Preserve will identify any adverse changes in vegetation community distribution and habitat quality, such as changes from fire, invasion by non-natives or decline of existing species, and indicate if modifications to current management actions are needed. More frequent monitoring may be required following a significant fire within the Preserve. The main product of this monitoring will be a report which will include a discussion of monitoring objectives, monitoring methods to meet those objectives, and an updated vegetation community map.

***Implementation Measure A.1.2*:** DPR will conduct general wildlife and rare plant surveys at five-year intervals utilizing and refining baseline monitoring methods to facilitate trend and distribution status analysis. This information will be included in the monitoring report.

***Implementation Measure A.1.3*:** DPR will conduct monitoring for invasive plant species at five-year intervals to assess invasion or re-invasion by invasive, non-native plant species within the Preserve. These surveys will focus on areas

where invasive, non-native plants have been detected in the past, but also look for new occurrences in the Preserve. This information will be included in the monitoring report.

Management Directive A.2 – Meet the corridor monitoring requirements of the MSCP (*Priority 2*)

As discussed in Section 3.4, the Preserve is an important component of a large regional linkage between the Santa Ana Mountains and Palomar Mountains. It is crucial in providing an upland area linking Gomez Creek to the west and Pala Creek to the east. The Preserve contains many dirt access roads and trails that facilitate animal movement across an otherwise dense stand of southern mixed chaparral. While corridor monitoring within the Preserve will take place at the preserve level, it anticipated that it will provide data for better understanding wildlife movement on a regional scale.

***Implementation Measure A.2.1*:** DPR will conduct corridor monitoring at five-year intervals in conjunction with habitat monitoring and general wildlife and rare plant surveys (as described in implementation measures A.1.1 and A.1.2). The scope of monitoring will be sufficient to determine if corridors are being utilized, but not to determine the extent of use (i.e., how many individuals of any given species use a corridor). The results of the current assessment of habitat linkage function, including a list of species detected, will be included in the monitoring report.

5.2.2 MSCP Covered Species-Specific Monitoring and Management

Not all species occurring within the Preserve are expected to require species-specific management. It is expected, rather, that other management directives and implementation measures outlined under the Biological Resources and Vegetation Management elements should be sufficient to protect and manage optimal habitat conditions for most, if not all, species to maintain and/or thrive within the Preserve.

The North County MSCP provides habitat-specific management and monitoring guidelines that will benefit certain covered species for the following habitat types: Riparian, Marsh and Wet Meadow Habitat; Coastal Sage Scrub, Chaparral, and Grassland Habitat; Oak Woodlands and Coniferous Forest; and Vernal Pools. The Framework RMP outlines the major factors that are a risk to these specific habitats and discusses management and monitoring to reduce the threats. Additionally the North County MSCP Plan conservation analysis provides species-specific monitoring and management conditions for covered species that may need more specialized management directives.

Management Directive A.3 - Provide for management and monitoring of North County MSCP Covered Species (*Priority 1*)

DPR will implement the habitat-based and, in some cases, species-specific management and monitoring guidelines as outlined in the North County MSCP Framework RMP and conservation analysis for all proposed North County MSCP covered species within the Preserve.

The recommended guidelines for those species currently known to occur in the Preserve are listed below followed by an explanation of how monitoring and/or management activities in the Preserve will comply.

In order to avoid repetition, the following is a list of the common threats/risk factors to habitats and covered species, and the corresponding management directives or implementation measures intended to address these factors.

- ***Invasive, non-native plants***: Implementation measure A.1.3 and management directives B.2 and B.3.
- ***Invasive, non-native animals***: Management directive A.4
- ***Fire***: Management directives B.2, B.3 and B.4.
- ***Human Disturbance***: Management directives C.1 and C.2.
- ***Edge effects*:** Management directives D.7.

Orcutt's Brodiaea (*Brodiaea orcuttii*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1, A.1.2, and A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (grasslands) within the Preserve. The habitat will be managed to reduce the threat of fire and invasive, non-native plants.

Engelmann Oak (*Quercus engelmannii*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1, A.1.2, and A.1.3).

Management: Habitat Maintenance

The occurrence of this species on the Preserve consists of a solitary tree, which was likely planted for ornamental purposes in association with the remnant buildings at "The Compound" in the northern portion of the Preserve. Therefore impacts to the individual tree will be avoided, but no other management actions are proposed.

Orange-Throated Whiptail (*Cnemidophorus hyperythrus beldingi*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1, A.1.2, and A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (sage scrub, chaparral, grasslands and oak woodlands) within the Preserve. These habitats will be managed to reduce the threat of fire and invasive, non-native plants.

San Diego (Coast) Horned Lizard *(Phyrnosoma coronatum blainvillii*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1, A.1.2, and A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (sage scrub, chaparral, grasslands and oak woodlands) within the Preserve. These habitats will be managed to reduce the threat of fire and invasive, non-native plants.

Northern Harrier (*Circus cyaneus*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1 and A.1.2).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable foraging habitat (grassland and open coastal sage scrub) within the Preserve. These habitats will be managed to reduce the threat of fire and invasive, non-native plants.

Pallid Bat (*Antrozous pallidus*)

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring and general wildlife (presence/absence) surveys (as described in implementation measures A.1.1, A.1.2, and A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of foraging and roosting habitat (grasslands, shrublands, and oak woodlands) within the Preserve. These habitats will be managed to reduce the threat of fire and invasive, non-native plants.

5.2.3 Non-Native Invasive Wildlife Species Control

The North County MSCP Plan-wide and habitat-specific management and monitoring guidelines for non-native, invasive species control were used to develop the management directives and implementation measures provided below.

Management Directive A.4 – Reduce, control, or where feasible eradicate invasive, non-native fauna known to be detrimental to native species and/or the local ecosystem (*Priority 2*)

Brown-headed cowbird was observed at three sampling locations over a two-day period. The detection was likely due to a flyover by an individual. Brown-headed cowbirds do not currently appear to be posing an immediate threat to native species and/or the local ecosystem and thus no management is proposed at this time. Domestic dog was also observed within the Preserve. No other non-native, invasive wildlife species were detected during the 2009 surveys.

***Implementation Measure A.4.1*:** DPR will conduct surveys for the presence of invasive, non-native wildlife species of management concern, including cowbirds, at five-year intervals in conjunction with habitat monitoring and general wildlife surveys (as described in implementation measures A.1.1 and A.1.2). Subsequent surveys will document and monitor the extent of cowbird parasitism on target species nests, if any, in the Preserve.

***Implementation Measure A.4.2*:** If future monitoring indicates that cowbird parasitism is occurring within the Preserve and having a detrimental effect on native bird species, DPR will consider establishing a cowbird trapping program to increase the nesting success of target species.

***Implementation Measure A.4.3*:** Park rangers will document any observed evidence of domestic animal use in the Preserve. If documentation or monitoring and wildlife surveys (as described in implementation measures A.1.1 and A.1.2) indicate domestic animals in the Preserve are having a negative effect on sensitive biological resources, DPR will establish an education program for

adjacent landowners to: educate them of the negative impacts caused by domestic animals; and encourage them to keep pets properly restrained in order to prevent them from wandering onto Preserve property.

5.2.4 Future Research

The MSCP preserve presents a rich array of research opportunities for the academic and professional communities, primarily in disciplines related to biology, ecology, and natural resources management, but also ranging to environmental design, sociology, and park use and administration. The County of San Diego encourages research within the MSCP preserve in order to gain valuable information unavailable through other means.

There are a multitude of unanswered questions posed by the development of a multiple species and habitat system where little literature or previous research exists on the majority of species inhabiting the region. In addition, research on vegetation associations and habitats, natural regeneration, restoration, fragmentation, edge effects, genetics, viability, predation, wildlife movement, and much more, would be useful to provide information on the health and dynamics of this open space system as well as how to improve conditions.

Management Directive A.5 – Allow for future research opportunities for the Academic and Professional Scientific and Biologic Activities within the Preserve (*Priority 2*)

***Implementation Measure A.5.1*:** DPR will accept and review proposals for scientific research, monitoring, and habitat restoration and enhancement activities which are permitted within the MSCP preserve. Proposed research activities will be subject to approval by DPR. All such activities must obtain any necessary permits and shall be consistent with this RMP. Additionally, any person conducting research of any kind within the Preserve shall obtain a Right-of-Entry Permit from DPR, which will outline the precautions to be taken to preserve and protect sensitive biological and cultural resources within the Preserve and require results of any research to be made available to DPR.

5.3 Vegetation Management Element (B)

The North County MSCP provides Plan-wide and habitat-specific management and stewardship guidelines for non-native, invasive species control, habitat restoration, and fire and vegetation management. In addition, MBA prepared a *Vegetation Management Report for Mount Olympus Preserve* in conjunction with the baseline surveys (MBA 2010c). The report characterizes current site conditions and details recommended measures for invasive species control, habitat restoration, and fire management within the Preserve. These guidelines and recommendations were used to develop the management directives and implementation measures provided below.

5.3.1 Habitat Restoration

Per the North County MSCP, habitat restoration is not typically required by the Plan permit on preserve lands, but is encouraged if resources are available.

Management Directive B.1 – Restore degraded habitats to protect and enhance populations of rare and sensitive species through stabilization of eroded lands and strategic revegetation (*Priority 2*)

No active restoration is currently needed as the vast majority of the Preserve remains undeveloped and undisturbed. However, the main area with potential for restoration efforts are the areas recommended for invasive, non-native vegetation removal (as described in Section 5.3.2) associated with the abandoned ”Compound” site in the northern portion of the Preserve. These areas have potential to be restored to a more natural, ecological state after non-native eradication efforts have been conducted. In addition, there is potential for restoration in the eroded areas alongside the existing dirt access roads and trails after sediment stabilization has been conducted (as described in Section 5.4.3)

> ***Implementation Measure B.1.1*:** DPR will re-assess and prioritize the need for potential restoration activities within the Preserve during habitat monitoring (as described in implementation measures A.1.1 and A.1.3) and trail monitoring and maintenance activities (as described under implementation measures C.6.1, C.6.2 and D.3.1). Any proposed restoration activities should utilize current, accepted techniques and avoid/minimize impacts to sensitive species or native habitats. Any proposed revegetation activities should use only local, native species.

5.3.2 Non-Native Plant Species Removal and Control

Management Directive B.2 – Reduce, control, or where feasible eradicate invasive, non-native flora known to be detrimental to native species and/or the local ecosystem (*Priority 1*)

As described in Section 3.2.4, the majority of the Preserve contains native plant communities with the exception of a few stands of non-native, invasive plants. The stands of non-native, invasive vegetation currently are limited and have not begun to invade any of the surrounding plant communities. The majority of the non-native, invasive species were observed adjacent to the remnant buildings on the northern portion of the Preserve near the abandoned “Compound” site, with the exception of a small stand of yellow starthistle in the central portion of the Preserve and milk thistle in the northeast corner. Yellow starthistle and milk thistle are high priority species targeted for removal. The other non-natives are ornamental species are considered part of the historic landscape of the Preserve and are not proposed for removal.

***Implementation Measure B.2.1*:** DPR park rangers will routinely pull weeds or remove any non-native plant species in early stages of growth found along access roads or trails, including the stand of milk thistle located in the northeast corner of the Preserve.

***Implementation Measure B.2.2*:** DPR will coordinate with the County Department of Agriculture, Weights and Measures, the lead agency of the San Diego Weed Management Area, to implement mapping and control efforts for yellow starthistle within the Preserve.

Management Directive B.3 – Manage and minimize the expansion of invasive, non-native flora within the Preserve (*Priority 2*)

***Implementation Measure B.3.1*:** DPR will implement an educational program for adjacent residents in order to discourage the introduction of invasive, non-native plants into the Preserve. Provided information will discuss invasive plants harmful to the Preserve, and prevention methods. The program may also encourage residents to voluntarily remove invasive, non-native plants from their landscaping. See also implementation measure D.8.1.

5.3.3 Fire prevention, control, and management

Because Mount Olympus Preserve has not burned in over 65 years, it is considered a high fire risk area. The Preserve is located within the San Luis Rey West Priority Area for fuel management as identified by the Forest Area Safety Task Force (County of San Diego 2009c).

Current fire management activities within the Preserve include fuel modification zones in the northeastern portion of the Preserve where the Preserve abuts private residences along the parcel boundary (Figure 8). In addition, park rangers conduct vegetation clearing the along the eastern portion of this parcel adjacent to the Pala Temecula Road right-of-way.

In the event of a fire, access to the Preserve is provided by the existing dirt access roads and trails that run the entire north-south length of the Preserve. There are no fire breaks within the Preserve.

Management Directive B.4 – Provide for necessary fire management activities that are sensitive to natural and cultural resources protection (*Priority 1*)

***Implementation Measure B.4.1*:** Park ranger staff will maintain the established fuel modification zones on Preserve property adjacent to the existing residential structures that are within 100 feet of the Preserve property boundary, and within the Pala Temecula Road right-of-way. Management of the fuel modification zone and defensible space will adhere to CAL FIRE and North County Fire Protection District requirements.

The intent of the fuel modification zone is to protect habitable structures and infrastructure adjacent to the Preserve from wildfires. It may further protect the resources within the Preserve by absorbing some of the "edge effects" that might otherwise occur within the Preserve.

***Implementation Measure B.4.2*:** Park ranger staff will maintain the existing dirt roads/trails within the Preserve acting as access roads as needed to keep them fuel free. This may include thinning vegetation along each side of the dirt roads/trails up to two feet, or as needed. All techniques implemented for fire control should leave (or replace) adequate vegetation cover to prevent surface erosion.

***Implementation Measure B.4.3*:** Park ranger staff will identify and remove any dead snags identified as a hazard. Otherwise, snags will remain for wildlife purposes.

***Implementation Measure B.4.4*:** DPR will continue to coordinate with CAL FIRE to ensure that the fire response and implementation measures outlined here and in the Vegetation Management Report (MBA 2010c) are up-to-date and adequate for effective fire response within the Preserve. As part of this effort, DPR will review fire history maps at least once every 10 years to determine if Preserve lands are within natural fire return intervals and for estimation of fuel age class.

5.4 Public Use, Trails, and Recreation Element (C)

********THE PRESERVE IS NOT OPEN TO THE PUBLIC********

5.4.1 Public Access

The Preserve is currently not open to the public; however, evidence of illegal, motorized use, as well as evidence of hikers has been observed within the Preserve. DPR rangers routinely patrol the Preserve and conduct minor vegetation clearing to provide access to certain Preserve features.

Management Directive C.1 – Limit types of public uses to those that are appropriate for the site (*Priority 1*)

***Implementation Measure C.1.1*:** Park rangers will patrol and monitor the Preserve for any unauthorized public access and use of the Preserve. Park rangers will document any illegal access and use of the Preserve, and inform any unauthorized persons observed on site that the Preserve is not open to the public and request that they leave the property. In addition, they will enforce the following prohibited uses and restrictions within the Preserve. Park rangers may call the sheriff for legal enforcement, as appropriate.

a. Off-road or cross-country vehicle and public off-highway recreational vehicle activity are considered incompatible uses in the MSCP preserve,

and are therefore prohibited in the Preserve, except for law enforcement, Preserve management, utility access, and/or emergency purposes.

b. Hunting or discharge of firearms is an incompatible use in the MSCP preserve, and is therefore prohibited in the Preserve, except for law enforcement, and/or emergency purposes.

c. Poaching or collecting plant or animal species, archaeological or historical artifacts or fossils from the Preserve is generally prohibited; however, the County may authorize collecting upon approval for scientific research, revegetation or restoration purposes, or species recovery programs. In addition, impacts to historic features are prohibited except upon approval by the County.

d. Camping (including homeless and itinerant worker camps)

e. Feeding wildlife

f. Domestic animals, except horses and leashed dogs

g. Smoking

h. Campfires/Open Flames

i. Littering/Dumping

Management Directive C.2 – Manage access in sensitive biological and cultural resource areas within the Preserve (*Priority 1*)

***Implementation Measure C.2.1*:** DPR has identified and mapped narrow endemics and critical populations, and all covered species populations in the Preserve so that these areas can be avoided and/or monitored. Updated information on sensitive species in relation to access points will be obtained during general wildlife and rare plant surveys in conjunction with habitat monitoring (as described in implementation measures A.1.1 and A.1.2).

Management Directive C.3 – Provide appropriate interpretive and educational materials (*Priority 2*)

***Implementation Measure C.3.1*:** DPR will share outreach and educational information and notify the public of volunteer opportunities that advance the management, monitoring, and stewardship resources available, and objectives of this RMP. This information will be provided on the DPR website: www.sdparks.org.

Management Directive C.4 – Analyze any future proposed public access such that recreational use of the Preserve is consistent with the protection and enhancement of biological and cultural resources (*Priority 2*)

The Preserve is currently not open to the public and there are no immediate plans to open it to the public. However, a Public Access Plan (MBA 2010b) was prepared for

the Preserve for future consideration. This plan is on file with the DPR and identifies constraints to developing trails and access points; identifies opportunities for destinations, scenic experiences and routes; and analyzes potential impacts and requirements for developed trail and access options.

Implementation Measure C.4.1: If, in the future, it is decided to open the Preserve to the public, DPR will develop an appropriate trail system that is compatible with the North County MSCP objectives using the recommendations and guidelines in the Mount Olympus Preserve Public Access Plan (MBA 2010b) and the County-approved Community Trails Master Plan (County of San Diego 2009a). DPR will ensure that any new public-use trails and staging areas are designed and constructed to avoid and/or minimize impacts to sensitive biological and cultural resource areas.

Implementation Measure C.4.2: DPR will ensure that any future proposed trail system will undergo environmental review in accordance with CEQA prior to public use of the Preserve.

5.4.2 Fencing and Gates

Currently, there is no fencing within the Preserve. There is an existing vehicle gate north of the Preserve and two gates within the northeast corner of the Preserve at the eastern access point along Pala Temecula Road. These gates are maintained by DPR.

Management Directive C.5 – Install and maintain fencing and gates within the Preserve (*Priority 1*)

***Implementation Measure C.5.1*:** Park ranger staff will install fencing and/or gates as needed to restrict unauthorized access and protect particularly sensitive species or habitats from impacts. Points of unauthorized access and sensitive species impacts will be identified in conjunction with habitat, plant and wildlife, and trail monitoring activities (as described in implementation measures A.1.1, A.1.2, and C.6.1). DPR will ensure that any fences or gates will be designed and located so they do not impede wildlife movement or impact cultural resources.

***Implementation Measure C.5.2*:** Ranger staff will regularly inspect and maintain all fencing and gates within the Preserve. Fencing segments and gates will be repaired or replaced as necessary.

5.4.3 Trail and Access Road Maintenance

The Preserve is not open to the public. However, it contains two main access roads near the northeast and southwest corners of the Preserve and multiple disturbed trails, which are currently used for management purposes.

Management Directive C.6 – Properly maintain access roads and trails for user safety, and to protect natural and cultural resources (*Priority 1*)

***Implementation Measure C.6.1*:** Park ranger staff will monitor the existing dirt access roads and trails currently used for management purposes for degradation and off-trail access and use. Special attention will be paid to access areas through sensitive habitats such as native grassland, which provides habitat for Orcutt's brodiaea and northern harrier foraging, and oak woodland and rocky outcrop areas, which provide habitat for pallid bat. Park ranger staff will provide necessary repair/maintenance as needed. See also implementation measure B.4.2.

***Implementation Measure C.6.2*:** DPR will restore degraded habitats, control non-native plant species along trails, and reduce detrimental edge effects through spot treatment of non-native plants, maintenance and stabilization of trails and strategic revegetation. Measures to counter the effects of trail erosion may include the use of stone or wood cross-joints, edge plantings of native grasses, and mulching of the trail. See also implementation measures B.1.1 and D.3.1.

5.4.4 Signage

Management Directive C.7 – Install, and maintain appropriate signage to effectively communicate the Preserve is not open to the public (*Priority 1*)

No Trespassing signs are currently posted on all existing gates.

***Implementation Measure C.7.1*:** Park ranger staff will regularly inspect and maintain all posted signs within the Preserve in good condition. Signs shall be kept free from vandalism and will be repaired or replaced as necessary.

5.5 Operations and Facility Maintenance Element (D)

5.5.1 Litter/Trash and Materials Storage

Management Directive D.1 – Maintain a safe and healthy environment within the Preserve (*Priority 1*)

***Implementation Measure D.1.1*:** The permanent storage of hazardous and toxic materials within the Preserve will be prohibited. Any temporary storage must be in accordance with applicable regulations, and otherwise designed to minimize any potential impacts.

***Implementation Measure D.1.2*:** DPR will conduct a hazard assessment of the "Compound" site and implement the recommendations resulting from this assessment.

Management Directive D.2 – Enforce regulations regarding littering/dumping (*Priority 1*)

***Implementation Measure D.2.1*:** Park rangers will enforce regulations regarding littering/dumping (County Code of Regulatory Ordinance Section 41.116). Penalties for littering and dumping will be imposed by law enforcement officers sufficient to prevent recurrence and reimburse costs to remove and dispose of debris, restore the area if needed, and pay for additional DPR staff time. Areas where dumping recurs will be evaluated for potential barrier placement. Additional monitoring and enforcement will be provided as needed.

5.5.2 Hydrological Management

One of the conservation goals for the Mount Olympus Core Area is to minimize impacts to the Pala Creek watershed. While no water bodies or drainage features occur within the boundaries of the Preserve, sheet flows from the Preserve flow into the Pala Creek watershed. The North County MSCP habitat-specific hydrology management and monitoring guidelines and Plan-wide stewardship guidelines for erosion control were used to develop the management directive and implementation measure provided below, which are intended to meet this goal.

Management Directive D.3 – Identify and control erosion hazards within the Preserve *(Priority 2)*

Multiple eroded areas were observed along the existing disturbed trails within the Preserve. This erosion is promoted by the combination of erodible soils, steep slopes, and certain hydrologic condition of the soils within the Preserve, and may be aggravated by human disturbance such as fire-control activities, trail or road construction, or off-road vehicle activity.

***Implementation Measure D.3.1*:** DPR and park ranger staff will monitor current eroded sites and potential sites that may erode in conjunction with habitat and access road/ trail monitoring activities (as described in implementation measures A.1.1 and C.6.1). In order to prevent additional erosion damage within the Preserve, all areas of moderate to severe erosion, causes of the erosion, and any current or potential effects to biological resources will be identified and ranked for priority.

If deemed necessary, an erosion control plan, including measures such as establishment of physical features to slow surface flow (e.g., water bars) and revegetation of eroded surfaces, will be developed for those areas identified as high priority. Additionally, contingency native seeding plans may be prepared in conjunction with habitat restoration and maintenance activities (as described in implementation measures B.1.1 and C.6.2) for highly erosive areas which may be temporarily disturbed by fire or other disturbances and bare surface grading for fuel management should be prohibited on steep slopes.

5.5.3 Emergency, Safety and Police Services

Management Directive D.4 – Cooperate with public health and safety personnel to achieve their goals while helping to reduce or eliminate impacts to biological and cultural resources within the Preserve (*Priority 1*)

***Implementation Measure D.4.1*:** DPR will allow law enforcement officials and all medical, rescue and other emergency agencies to access Preserve property as necessary to enforce the law and carry out operations necessary to protect the health, safety, and welfare of the public. DPR will coordinate with the applicable agencies to inform field personnel of the locations of particularly sensitive biological and significant cultural resources and how to minimize damage to these resources.

5.5.4 Adjacency Management Issues

As described in Section 2.4.2, there is currently only limited development immediately contiguous to the Preserve. The establishment of the MSCP preserve system does not include regulatory authority on properties adjacent to the Preserve; however, the County requires adjacent property owners to follow permitting conditions when planning and implementing uses and activities that can be regulated when located immediately adjacent to the site.

Management Directive D.5 – Coordinate with adjacent landowners and open space land managers (*Priority 1*)

Implementation Measure D.5.1: DPR will coordinate with BLM as the adjacent open space land managers on an annual basis, or more regularly as needed, to ensure the contiguous preserved land is managed consistently and in accordance with the MSCP.

Management Directive D.6 - Enforce Preserve boundaries (*Priority 1*)

***Implementation Measure D.6.1*:** DPR will enforce, prevent, and remove illegal intrusions into the Preserve (e.g., orchards, decks) on an annual basis, in addition to a complaint basis.

Management Directive D.7 – Educate residents of surrounding areas regarding adjacency issues (*Priority 2*)

***Implementation Measure D.7.1*:** DPR will provide information on this RMP to residents adjacent to the Preserve to heighten environmental awareness, and inform residents of access, appropriate landscaping, construction or disturbance within the Preserve boundaries, pet intrusion, fire management, and other adjacency issues. This RMP will also be accessible on the DPR website and will thus be available to adjacent residents and to the general public.

5.6 Cultural Resources Element (E)

The goal of this section of the RMP is long-term preservation, public interpretation of the cultural resources, and interaction with the bands of Native Americans in whose traditional tribal territory this Preserve exists.

Management Directive E.1 – Identify, record and assess the significance of new cultural resources found within the Preserve (*Priority 1*)

Because the majority of the Preserve is currently covered in impenetrable brush, there is moderate probability that undiscovered significant cultural resources exist on site in areas that were not accessible during the 2009 surveys.

***Implementation Measure E.1.1*:** Identify and record cultural resource sites in those areas of the Preserve where, if in the future, brush is removed as a result of wildfire or planned ground disturbing activities including clearing, grubbing or new trail development efforts. Any cultural materials collected from the Preserve will be curated at a qualified curation facility. No removal or modification of cultural resources shall occur without written approval by the Director of Park and Recreation.

Management Directive E.2 – Preserve and protect significant cultural resources to ensure that sites are available for appropriate uses by present and future generations (*Priority 2*)

***Implementation Measure E.2.1*:** Threats to the known cultural resources on site from natural (e.g., fire, erosion, floods) or human-caused events shall be identified, and impacts prevented, reduced, eliminated, or adverse effects mitigated. Safeguards against incompatible land and resource uses shall be identified to protect all cultural resources.

***Implementation Measure E.2.2*:** The condition and status of known cultural resources on site shall be noted as part of routine monitoring activities conducted on a five-year basis in conjunction with habitat monitoring and general wildlife and rare plant surveys (as described in implementation measures A.1.1 and A.1.2). Remedial measures shall be taken if damage is noted. Monitoring activities should also photo-document site conditions so that comparisons can be made over time. Any monitoring of the sites in the Preserve will follow the guidelines found in the County of San Diego *Report Format and Content Requirements, Cultural Resources: Archaeological and Historical Resources* (2007).

All site location information will be kept strictly confidential, and will be available only for qualified cultural resource staff and land managers. Site locations will not be shown on maps or divulged to the public.

***Implementation Measure E.2.3*:** All management activities within the Preserve including, but not limited to, trail construction and maintenance, placement of fencing and gates, and restoration of habitat will take into consideration potential impacts to cultural resources and shall avoid adverse impacts to any cultural resources to the maximum extent possible. No ground disturbing activities will be allowed on or in any cultural resource site within the Preserve until the impacts have been assessed.

If avoidance is not feasible, appropriate mitigation measures will be established. Removal or disturbance of cultural resources shall not occur prior to completion of an approved mitigation program, such as data recovery or recordation. Preservation in place is the preferred mitigation measure.

Management Directive E.3 – Honor Native American Heritage and promote Native American ceremonies, gathering, and cultural practices (*Priority 2*)

***Implementation Measure E.3.1*:** DPR will continue to coordinate and consult with the Pala Band of Mission Indians and the San Luis Rey Band of Mission Indians in order to keep them informed of activities associated with the Preserve. Consultation shall be conducted frequently in order to identify appropriate management of pre-contact and ethnographic cultural resources. The tribes will be encouraged to participate in evaluation, recordation, protection and preservation of cultural resources.

***Implementation Measure E.3.2*:** The County will open the Preserve to traditional uses, including selective harvesting of native plants, by the Pala Band of Mission Indians and the San Luis Rey Band of Mission Indians. All activities by Native Americans in the Preserve shall be conducted with a Right-of-Entry permit specifically designed for the Preserve.

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APPENDIX A

Baseline Biodiversity Report for the Mount Olympus Preserve in Unincorporated San Diego County, California

(See www.co.san-diego.ca.us/parks/management_plans.html)

APPENDIX B

Cultural Resource Inventory of the Mount Olympus Preserve Project for the County of San Diego Parks Department, San Diego County, California

(See www.co.san-diego.ca.us/parks/management_plans.html)